

***United States Court of Appeals
for the Second Circuit***



TRANSCRIPT

APPEAL
75-6068
PETITION
75-4164

United States Court of Appeals

FOR THE SECOND CIRCUIT

SUN ENTERPRISES, LTD., SOUTHERN NEW YORK FISH AND GAME
ASSOCIATION, INC., LYMAN E. KIPP, RICHARD E. HOMAN, NO
BOTTOM MARSH and BROWN BROOK,

Plaintiffs-Appellants,

—against—

RUSSELL E. TRAIN, *et al.*

["Federal Defendants"], *Defendants-Appellees, and*

HERITAGE HILLS OF WESTCHESTER, *et al.*

["Private Defendants"],

Intervenors.

SUN ENTERPRISES, LTD., SOUTHERN NEW YORK FISH AND GAME
ASSOCIATION, INC., LYMAN E. KIPP, RICHARD E. HOMAN, NO
BOTTOM MARSH and BROWN BROOK,

Petitioners,

—against—

ADMINISTRATOR OF THE U. S. ENVIRONMENTAL
PROTECTION AGENCY, RUSSELL E. TRAIN,

Respondent, and

HERITAGE HILLS OF WESTCHESTER, *et al.*

Intervenors.

Appeal from the U. S. District Court for the Southern
District of New York

Petition to Review Order of U. S. Environmental
Protection Agency

TRANSCRIPT OF DEC Hearing, Volume 8 of 9

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THE STENOGRAPHIC RECORD

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter

of

the Application of HENRY PAPARAZZO
and CURTIS McGANN (HERITAGE HILLS)
for the acquisition of a source of
water supply, etc.

Sommers, New York
October 9th, 1973

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STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter

of the

Application of HENRY PAPARAZZO and CURTIS McGANN (HERITAGE HILLS) for the acquisition of a source of water supply by the development of wells to ultimately supply 1.2 million gallons per day and the construction of a water supply and distribution system to provide service to a planned residential community consisting of approximately 3,000 living units for the construction of a dam approximately 20 feet high to create a pond having an area of approximately 1.6 acres on an unnamed tributary, known locally as Brown Brook, of the New Croton (Muscoot) Reservoir which is designated H-31-P-44-18 and which has been classified C(t), for the construction of a sewage effluent discharge structure, and for relocation of approximately 650 feet of the so-called Brown Brook to build a sewage treatment facility.

Water Supply Application No. 6284

TRANSCRIPT OF PROCEEDINGS in the above-entitled matter at a hearing held by the New York State Department of Environmental Conservation at the Town Hall, Town of Somers, Westchester County, New York, on Tuesday, October 9th, 1973, commencing at 10:00 A.M.

PRESIDING: WILLIAM J. DICKERSON, JR.,
Hearing Officer.

APPEARANCES: As heretofore noted.

P R O C E E D I N G S

MR. DICKERSON: Ladies and gentlemen, good morning. Happy Monday. I know it isn't but it feels like it.

This is a continuation of a hearing before the Department of Environmental Conservation in the matter of the application of Henry Paparazzo and Curtis McGann under Water Supply Application No.6284, related stream protection applications, involving construction of a water supply system and certain stream projects having to do with Heritage Hills of Westchester. I think everybody is pretty much familiar with the scope of the hearing and the general matters before us.

At this time, we'll have the case of one of the objectors. I'll turn the floor over to Mr. Florence.

MR. FLORENCE: Thank you.

Mr. Kelly, will you take the stand, please.

HOWARD A. KELLY, JR.,
called as a witness for and in behalf of the
objectant Kipp, having been first duly sworn,
was examined and testified as follows:

MR. DICKERSON: Would you please be
seated, state your name and address and affiliation.

THE WITNESS: My name is Howard A.
Kelly, Jr. I'm a consulting engineer and community
planner. I live at 28 Croton Lake Road, Katonah,
New York.

DIRECT EXAMINATION

BY MR. FLORENCE:

Q. Mr. Kelly, have you prepared a resumé of your past
experience as it relates to the testimony today?

A. Yes, I have.

Q. All right. And is this a copy of that resumé?

A. Yes, it is.

MR. FLORENCE: All right. In the
essence of saving some time on your qualifications,
Mr. Biasi, I would show you a photostatic copy
of that resumé and see if you would concede to his
expertise. I'll get one for you. I only had
presence of mind to bring two.

MR. DICKERSON: Go off the record for a second while the parties examine it before we mark it.

(Discussion off the record.)

MR. BLASI: Mr. Florence, I'm assuming that you're going to ask him whether he would answer questions if they were put to him, if that would be his answer.

MR. FLORENCE: Sure.

MR. BLASI: I have no objection to the statement subject to the right of cross-examination.

MR. FLORENCE: Of course. I'll produce it back later.

BY MR. FLORENCE:

Q. Mr. Kelly, if I asked you questions in relation to your resumé and as listed with respect to your education, professional licenses, professional affiliations and your summary of governmental experience, would your answers be the same as you have listed here?

A. Yes, they would.

Q. All right. And would that also be the same of a partial list of the services and the clients that

you have to work with under the different categories which you have indicated and included as part of your resumé?

A. Yes, it is.

Q. And as well as your planning, zoning and urban renewal experiences and sewers and water supply?

A. Yes.

MR. FLORENCE: All right. Then I would offer your resumé in evidence and subject, of course, to Mr. Blasi's right to cross-examine.

MR. DICKERSON: For identification, a resumé of Howard A. Kelly, Jr. is marked as Exhibit No. 44.

(The resumé described above was marked for identification as Exhibit No. 44, this date.)

MR. DICKERSON: Are there any objections to having it received into evidence?

MR. BLASI: As I said, Mr. Examiner, subject to right of cross-examination either admitting or denying.

MR. DICKERSON: No objections, and with the reservation of cross-examination, of course, being standard, the Exhibit 44 will be received into evidence.

(Exhibit No. 44 previously marked for identification, was received in evidence, this date.)

BY MR. FLORENCE:

Q. Mr. Kelly, have you done a study of the land south of the applicant's parcel?

A. Yes, I have.

Q. All right. And the lands that are specifically referred to are lands of Sun Enterprises?

A. Yes, they are.

Q. All right. And have you studied also the different drainage basins as they relate to the basins which are involved in the application of this water supply permit?

A. Yes, I have.

Q. All right. And from that, have you made any maps or done any drawings or compiled any data?

A. Yes, I have.

Q. All right. And in relation to that, did you compute or did you make any map or detail in relation to the drainage basin north of the dam which has been proposed to be constructed and to be part of this hearing?

A. Yes, I did.

Q. No, wait a minute. Let me ask you the questions. What is the result of your computation, first of all, of the drainage basin which is north of the proposed dam?

A. The drainage area --

MR. BLASI: Mr. Examiner, I object to the question as being vague in definition of the drainage basin.

MR. DICKERSON: I think that Mr. Kelly has an answer. I think there's -- may I ask the question?

MR. FLORENCE: Sure.

MR. DICKERSON: What is the area of the drainage basin upstream of the dam, the proposed dam, excuse me.

THE WITNESS: 1,131 acres.

Q. Have you got a map with any symbol which would show that drainage area?

A. Yes, I have.

Q. Is that -- am I looking at that map?

A. Yes, that -- that map --

MR. FLORENCE: Yes. O.K. Could we

mark this for identification first?

MR. DICKERSON: For identification, Exhibit No. 45 is a map bearing the caption "Town of Somers, Westchester County, New York" indicating a preparation date of July 27th, 1973 with revisions of September 25th, 1973 and October 1st, 1973. It is indicated as drawing No. 7307-776A and it bears the seal of Howard A. Kelly, Jr., Professional Engineer. I'll let you describe it further.

MR. FLORENCE: That's enough for me.

(The map described above was marked for identification as Exhibit No. 45, this date.)

(Continued on page 1221)

MR. FLORENCE: The map as far as being identified -- we will go further in testimony.

MR. DICKERSON: We will take a one-minute relaxation period. Off the record.

(Discussion off the record.)

MR. FLORENCE: I'm not going to offer it at this minute. I am going to ask him a series of questions.

MR. BLASI: All right, I will hold.

BY MR. FLORENCE:

Q. Mr. Kelly, would you explain to Mr. Dickerson and to the interested parties here --

MR. BLASI: Could you hold it up so we can see it while you explain it?

MR. DICKERSON: Would it be advantageous to put it up on the wall?

MR. BLASI: Yes.

BY MR. FLORENCE:

Q. Mr. Kelly, would you explain to the interested parties here how you prepared that map?

A. Yes. The map is prepared at a scale one inch equals 1,000 feet. The Town of Somers' zoning base map was used as the base for the scale. I

utilized the map of the -- schematic map of the master plan for Heritage Hills to overlay their portions of the land on the map. I used a map prepared by Bibbo Associates to indicate the lands of Sun Enterprises. I used base maps from the Town of Carmel to indicate those portions of the drainage areas in Putnam County, and the elevation datum are taken from U. S. G. S. maps, the appropriate quadrangles for that area.

MR. BLASI: What was that last, U. S. G. S. what, elevations?

THE WITNESS: Yes.

BY MR. FLORENCE:

Q. And following using that, you have color coded this map in some fashion, have you?

A. Yes.

Q. All right.

A. The brooks shown on the thing or the watershed areas shown on there -- take the Brown Brook watershed. That's shown in the yellow, the green and the -- oh, brown and the green at various points along the stream. The first area in the large yellow is the area above the proposed dam which we

computed to be 1131 acres. The area below that consists of an area 459 acres, and that's the drainage area above Route 202, and that comes out to a total of 1599 acres or approximately two and one-half square miles.

Q. All right. And that's color coded in a light green, is it?

A. That's color coded in a light green.

MR. BLASI: Wait a minute, wait a minute.

MR. DICKERSON: I think, gentlemen, it might be simpler, although the colors are apparent to those present, to establish on the record letter markings on that map for the different colored areas. Would that facilitate things?

MR. FLORENCE: If you wish.

MR. DICKERSON: I think --

MR. FLORENCE: What I will do is I will --

MR. DICKERSON: -- red will be better.

BY MR. FLORENCE:

Q. Now, Mr. Kelly, in relation to that drainage area

upstream --

MR. DICKERSON: I would suggest that the different colored areas just have labels marked on them to identify the color block rather than outline them.

BY MR. FLORENCE:

Q. And "A" and a "B" on this, the "B" on this, the "A" being the light yellow denoting the area upstream of the dam which is calculated to be the drainage basin and "B" being the drainage basin on the north side of Route 202?

A. That's correct (indicating).

Q. Draining into the Brown Brook, both of them?

A. "A," "B," "C" and "D" are the drainage area of Brown Brook, "A" being the area above the dam, "B" being the incremental area above 202, "C" being the drainage area which contributes to the pond on the Sun Enterprises property and area "D" being the final area before the stream goes into the Muscoot.

Q. Have you calculated the acreage areas in relation to Areas A, B, C and D?

A. Yes.

Q. You've given us A and B, I believe. How about C and

D?

A. 418 acres and D, 325 acres.

Q. All right.

A. For a total of 2,342 acres and 3.6 square miles.

Q. Now, have you --

MR. BLASI: What was the two-and-a-half square miles?

MR. FLORENCE: North of the dam.

THE WITNESS: North of 202. That compares very favorably with the area that Mr. McPhee --

MR. FLORENCE: That's what he said it was.

BY MR. FLORENCE:

Q. Have you computed the areas of the other drainage basins of the streams that we have mentioned, namely, the Plum Brook and the unnamed stream? And if you have, I will ask you to in seriatim continue to mark the various areas and designate what they represent.

MR. BLASI: Mr. Examiner, I object to any reference to the drainage area of Plum Brook since it is not within the scope of this hearing.

MR. DICKERSON: Sir, I don't know where the objector is going to take his case, the

direction he's going to present, but for the purpose of at least identification, the areas marked on that map, I will allow and request Mr. Kelly to continue to identify the various portions on that map by letter designators for references.

MR. BLASI: Only for purposes of identification.

MR. DICKERSON: At this point.

MR. BLASI: At this point.

MR. DICKERSON: I don't know what's coming yet.

MR. BLASI: O.K.

MR. DICKERSON: But I think while the map is apparent to all who view it, the areas are distinguishable, for the purposes of correlating the map with the stenographic record, it would be advisable to mark all these colored areas by a letter designator, and we have a common frame of reference.

MR. BLASI: I'll reserve our objection then at this point.

MR. DICKERSON: Thank you, sir.

MR. BLASI: Are you still in red?

THE WITNESS: Still in red (indicating). Area E consists of 962 acres measured above Mill Street. It's the tributary, unnamed tributary, to Plum Brook.

MR. BLASI: May I make a suggestion, Mr. Examiner? Would you be kind enough to direct Mr. Kelly to speak just a little slower so that we can get this down since he's referring to some areas?

MR. DICKERSON: Yes, sir. Mr. Kelly, you heard Mr. Blasi's request. I think you would agree when you use the term "tributary," you're referring to the drainage areas of the various streams, is that correct?

THE WITNESS: That's correct.

MR. BLASI: The drainage tributary?

MR. DICKERSON: The drainage area.

MR. FLORENCE: Of the tributary.

MR. DICKERSON: Or of each stream as mentioned.

MR. FLORENCE: And Number E is the tributary that runs into the Plum Brook, if I understood your testimony.

MR. DICKERSON: Letter F, if you

will continue.

THE WITNESS: Letter F defines the area, the drainage area, of the main branch of Plum Brook which starts in Putnam County, and that area consists of 24 -- 2848 acres, and that area is measured to a point on Brick Hill Road where the bridge crosses over the stream, so that at that point you would have both Areas E and F forming the total shed of both the main branch and the tributary branch to Plum Brook.

MR. DICKERSON: Mr. Kelly, the drainage area you just mentioned, 2848 acres --

THE WITNESS: Yes.

MR. DICKERSON: -- is that the totals of Areas E and F or just the Area F marked in blue?

THE WITNESS: Just the Area F.

MR. DICKERSON: Thank you.

THE WITNESS: (Continuing) Then continuing downstream from where Plum Brook crosses Brick Hill Road, the area of drainage within the Sun Enterprises property marked "G," the drainage area is 315 acres. Then the final portion of the total area of the Plum Brook below the Sun Enterprises property and up to where it enters Muscoot Reservoir is computed at 245 acres. The total area then of Plum Brook contributing drainage to this point is approximately 6.8 square miles.

Q. Mr. Kelly, is there a standard procedure for computing the area of terrain?

A. Most times you -- once you have established the ridge lines and the drainage area itself, you would use a planimeter to measure the area of the drainage areas.

Q. Is that the method that was used in the calculation of these areas as they're outlined and depicted on this map?

A. Yes, it was.

MR. FLORENCE: I offer that in evidence.

MR. DICKERSON: Mr. Kelly, for one further step, I notice you marked the brown colored

3/1/2

(Howard A. Kelly, Jr.)

1230

area with the letter "I". For the record, what is it? Is that our little orphan Question Mark Brook or unnamed brook?

THE WITNESS: Yes, that's Adams Brook or Question Mark Brook and it contains an area of 406 acres tributary to the -- contributing drainage area to the crossing under Route 202 before it again goes into Muscote and into the reservoirs.

MR. DICKERSON: That area then is the drainage area upstream of the area that crosses the combined 202-100?

THE WITNESS: Yes, sir.

MR. DICKERSON: Thank you.

MR. FLORENCE: I offer Exhibit No. 45 in evidence.

MR. DICKERSON: Mr. Blasi?

MR. BLASI: I'd like a couple of questions if I may.

Mr. Kelly, you have referred to the property of Sun Enterprises and you have marked --

MR. FLORENCE: I can't see.

MR. BLASI: I don't imagine you can.

PRELIMINARY EXAMINATION

BY MR. BLASI:

Q. You have marked, if I see it correctly, the areas "C," "D," "G," and "H." Are those the properties of Sun Enterprises?

A. No. The property of Sun Enterprises is contained in a portion of those areas. This shaded area indicates the outline line of the Sun properties so a portion is in "C." A portion is in "D" and a portion of it is in "G."

Q. Now, the Sun Enterprises, to your knowledge, does it actually own the property that you've referred to?

A. To the information furnished to me by the owners that they do own these properties.

Q. But you don't know that of your own knowledge?

A. Well, based on information that's been furnished, you know, it indicates --

Q. Something that was told to you; you don't know that of your own knowledge?

A. No, I have not reviewed the assessment rolls or anything like that.

MR. BLASI: Now, just a minute.

Mr. Examiner, to the extent that that exhibit refers

to the drainage area of Plum Brook and to the drainage area of Question Mark Brook, the applicant enters an objection as to the introduction in evidence of that portion of that exhibit.

MR. FLORENCE: May I be heard?

MR. DICKERSON: Please.

MR. FLORENCE: I address myself to that particular part of the objection and I would point out or point to your attention --

MR. BLASI: Now, we can't see, Bill.

MR. FLORENCE: (Continuing) -- Mr. Hearing Examiner, that portions of the applicant which are indicated or the land subject of this application are indicated in the drainage basin of each of the three streams which are noted and marked and it's that presence of the land of the applicant and as part of this application which are in all three which we seek to point out and it's in that spirit that the map has been indicated -- has been marked and indicated.

MR. BLASI: Mr. Examiner, I refer you to the application and to the notice of hearing.

MR. DICKERSON: Yes, sir.

MR. BLASI: And the application relates

solely to Brown Brook, no reference to Plum Brook and to the Question Mark Brook, whatever it is, and any questions relating to the drainage area must be within the scope of the application as made and within the scope of the notice as published.

MR. DICKERSON: Yes, sir. I would comment that the Question Mark Brook is relating to another portion of this application in some detail, at least the drainage area. I'm going to receive Exhibit 45 for what it's worth.

MR. BLASI: Without --

MR. DICKERSON: I am going to ask Mr. Kelly if he will outline -- I notice that there is an outline of the approximate boundaries of the Heritage Hills property. Will you just darken that outline with the black marker pen?

Mr. Blasi, your comments, of course, are noted for the record. I take cognizance of them.

MR. BLASI: Thank you. Yes, sir.

(Exhibit No. 45 previously marked for identification was received in evidence, this date.)

MR. FLORENCE: We have one small problem in relation to delineating the property of the

applicant as distinguished from the application here in that the wells are outside of the area.

MR. DICKERSON: I recognize that the property now being outlined --

MR. FLORENCE: They are contiguous.

MR. DICKERSON: -- is taken to be -- I can't remember your local reference for it.

MR. FLORENCE: Our DRD.

MR. DICKERSON: The DRD copied from the Master Map. I only requested that the area be outlined in a darker pen so that it's a little more visible. I recognize that there are at least four established units relating to the application, the DRD, the lands of the applicant, the water district and the sewer district.

MR. BLASI: 917 plus or minus. The Examiner noted that the lands of the water district as formed and the lands within which the waterworks corporation is to operate --

MR. FLORENCE: Are larger.

MR. BLASI: -- and the land owned by these applicants is 917 plus or minus. The 836 is merely that shown on the comprehensive map or plan.

MR. DICKERSON: 936?

MR. BLASI: 836, and the other is 917 plus or minus. It's almost 918 but it's --

MR. DICKERSON: And that 836 constitutes the DRD?

MR. BLASI: That is the subject of this project.

MR. DICKERSON: No problem. I think with apologies to Mr. Kelly's hard work and preparation, that darkening that line makes it a little bit more visible, I'll use that word.

MR. FLORENCE: All right.

MR. DICKERSON: Mr. Florence, please continue.

BY MR. FLORENCE:

Q. Yes. Mr. Kelly, did you take any measurements in relation to the relative elevations of points of the Brown Brook in relation to the Sun Enterprises parcel? Yes or no?

A. Yes.

MR. BLASI: I'm sorry, I didn't hear the question.

MR. FLORENCE: All right, we'll read that back.

MR. DICKERSON: Would you read that back, please, Pauline?

(The record was read by the reporter.)

Q. Can you tell me what points you measured and what was the -- what those measurements were, in other words, the locations and the measurements?

A. Yeah. A survey crew went out and took elevations at the entrance to Firemen's Pond at various points within the Sun Enterprises property where roadways and culverts crossed the Brook and at the dam and at the water reservoir.

Q. Would you mark on this map or -- do you have a map which you have -- on which you have marked those points that those elevations were taken?

A. Yes, I do.

Q. Is this that map?

MR. BLASI: Well, now --

A. Yes, it is.

MR. FLORENCE: I would ask, Mr. Dickerson, that we mark for Exhibit No. 46 for identification this particular map.

MR. BLASI: I think you're doing it backwards but --

MR. FLORENCE: How would you suggest I do it?

MR. BLASI: Well, I would think you mark it first for identification before he starts answering questions. It's something we don't know what he's talking about.

MR. DICKERSON: Well, we'll get that point taken care of right now. Let me look at it for a second.

MR. FLORENCE: Sure.

MR. DICKERSON: For identification, Exhibit No. 46 is a map bearing the caption "Sun Enterprises Limited," further captioned "Route 202, Somers Road and Route 100, Town of Somers, Westchester County, New York." A latest revision to this map indicates that it was prepared on July 16th, 1973 and had two revisions, the latest of which was dated 1 October '73 and bears the seal of Mr. Kelly and I'll refer to it specifically as Drawing No. 7307-776B.

(The map described above was marked for identification as Exhibit No. 46, this date.)

Q. Now, Mr. Kelly, can you tell us what the -- what these red numbers or numerals are on this chart, how you

came to get them, what they represent? This is Exhibit No. 46 for identification.

A. Do you wish to hang this one up, too?

MR. DICKERSON: If you think it would be easier. Go off the record for a second. Let's take a break for a minute and let everybody -- we'll facilitate the matter by letting the various counsel look at the map. Then I'll hang it on the wall and we can proceed from there. Let's go off the record for a second.

(Discussion off the record.)

(Continued on page 1239)

BY MR. FLORENCE:

Q. Mr. Kelly, on Exhibit 46 will you explain what you did in relation to that exhibit and what those numbers that I observed in red represent?

THE WITNESS: Can I walk to the map?

MR. DICKERSON: Please, just as long as the voices are up.

THE WITNESS: The elevations indicated in red are based on the elevations obtained by a field survey crew who took elevations on the Sun property. Essentially they indicate that the water level entering Firemen's Pond is 85.90. The level where the first road crosses Brown Brook is 80.99. That's a distance of approximately 700 feet. That's an elevation drop of 5.21 feet. From that point northerly of the point, elevations were taken at various places where the service roads on Mr. Kipp's property cross the brook and then finally down to the water level at the dam behind the Cricket. In that area there's a drop of 1.35 feet and 3200 feet with a slope of 0004. The elevations also indicate that the level of the reservoir --

MR. BLASI: I object to the use of

the word "reservoir," Mr. Examiner.

MR. FLORENCE: How about if we call it the body of water indicated as reservoir on this map, denoted, O.K.?

MR. BLASI: It's a pond.

MR. DICKERSON: Let's do it the hard way, gentlemen. Put an "X" in the middle of the body of water with this green marker pen and refer to that point.

MR. BLASI: The City of New York might object to having that called a reservoir.

MR. FLORENCE: The definition as I read the dictionary and as I understand the existence of that body of water is a reservoir.

MR. BLASI: Pre-ecology.

MR. FLORENCE: Yes, pre-ecology.

MR. DICKERSON: Off the record.

(Discussion off the record.)

MR. DICKERSON: We may want to resolve whether this is a reservoir or not or for what in a few minutes, but in the meantime we will refer to this as the body of water marked with the green "X".

THE WITNESS: O.K. The elevation of the water level as indicated in the green marker with the green "X" is elevation 79.7. It indicates that the -- all those areas above and to the north of this reservoir have a higher elevation, and the areas to the east of it also have the higher elevations, and the areas below it have a slightly lower elevation, and the water level at the dam has a difference of about three-tenths of a foot below the elevation of the pond.

BY MR. FLORENCE:

Q. Covering what distance? Approximately.

A. Approximately 3,000 feet.

Q. What is the closest point of the present location of the pond to the stream? That is, where are they in closest proximity to one another in distance?

A. The --adjacent to the easterly portion of the pond where the service road traverses the pond, the stream channel is not very clearly defined, and I would estimate the distance to be about 20 feet.

Q. And were you present on the site to verify and check the figures of the survey crew that developed these numbers?

A. Yes, I was.

Q. Can you tell us the terrain, the character of the terrain, immediately south of the Firemen's Pond in the direction of the flow of the stream on the Sun Enterprises parcel? Have you been on the property?

A. Yes, I've been on the property about seven or eight times.

Q. All right. Now, answer that preceding question, please, if I may.

A. The area around the ten-acre pond or reservoir consists of about 50-some-odd acres of very flat land. Originally from observations of excavations at the site, it appears that perhaps eight to ten feet has been removed of gravel and material, so that the whole area is very, very flat, and the field elevations indicate that there's not much pitch over the whole area. Also, to the northerly part of the pond or the reservoir, there seems to be an area of wetlands. They contain some types of vegetation and growth. It's very difficult to walk along the whole length of the pond, it's so well wooded in some of the portions of it, and that

would be generally along the northerly portion of the pond and along the easterly portion of the pond where the stream channel is not really clearly defined. Then to the west of the pond and for quite an area, the area has also been excavated, and it's very level, too. It's got a slight difference in elevation below the pond level, though.

Q. Have you made observations of the cross-section and/or the depth of Brown Brook as it traverses the property designated there as Sun Enterprises property?

A. I've made observations, but I have not taken any specific measurements.

Q. All right. What are your observations?

A. Well, at times, especially during the last several months when it's been so dry, there doesn't seem to be much evidence of flow. The size of the stream channel varies. I believe at Firemen's Pond it might be six to eight feet wide. Other places about the dam it might be 20 or 30 feet wide. It's very well wooded. I'm not an ecologist, but I saw different birds there I never saw before in my whole life by walking through it, so it's a wetlands area around --

Q. Do you have any observation of the depth of the brook itself as it traverses the Sun Enterprises property?

A. Again, I didn't take any measurements, but I would estimate it might be between one and two feet deep.

MR. BLASI: Could I have that last question?

MR. FLORENCE: The depth, I asked.

MR. BLASI: Of what?

MR. FLORENCE: The Brown Brook. He said no measurements, but he estimates between one and two feet, or he made observations.

BY MR. FLORENCE:

Q. Mr. Kelly, have you seen or made any observations of the presence of any wells on the parcel?

A. Yes, there are two wells located on the parcel. The first well is just south of the reservoir.

MR. DICKERSON: Water Body X.

THE WITNESS: Water Body X.

MR. DICKERSON: I'll get to that if nobody else does, but for now let's use a common frame of reference.

THE WITNESS: There's a --

MR. DICKERSON: If you will mark the location of the wells with a black marker pen on Exhibit 46 as you describe them.

(Witness indicates.)

MR. DICKERSON: Would you use a "1" for the one you just described first south of the pond? Let the record show that Exhibit 46 has been marked with a black marker pen with the designations W1 and W2. Mr. Kelly, I believe you described Well No. 1.

THE WITNESS: Well No. 1 consists of a pumphouse. It's above grade. It appears that the top of the pumphouse and the earth surrounding it was in its original condition. I took off the cover, and there are about ten steps going down to the bottom of the well house. There's a well. There's a 10,000 gallon storage tank. There's a generator and a well pump, and that pump takes the well water and delivers it to the State Police barracks and to the other buildings on Mr. Kipp's property.

BY MR. FLORENCE:

Q. What about the other one?

A. The other well is located northerly of the pond and just east of the brook. All's I could see there was a casing that had been driven into the ground, and it had a cap.

Q. Now, the elevation --

MR. BLASI: Capped? Did you say it was capped?

A. Capped.

BY MR. FLORENCE:

Q. The elevation of the top of this well -- that was Well No. 1 in relation to the -- not the immediate mound of ground which surrounds it but to the parcel, the elevation of the land outside of that, would you, if you have an estimate -- your best recollection of that relationship.

A. Six inches to a foot.

Q. Above which?

A. Above ground.

MR. FLORENCE: O.K. I offer Exhibit No. 46 in evidence.

MR. DICKERSON: Exhibit No. 46 has been offered into evidence.

MR. BLASI: No objection.

MR. DICKERSON: Any objection?

MR. BLASI: No objection.

MR. DICKERSON: No objection. It can be received. Mr. Kelly, I want to ask two questions, and I will do it now to get them out of the way. What is the elevation of the dam? I didn't catch it, although I know it's on the record.

THE WITNESS: Water level, 79.34.

MR. DICKERSON: 79.34? When were these measurements taken? When was the field work done?

THE WITNESS: Yesterday.

MR. DICKERSON: Thank you.

THE WITNESS: I'm sorry. That would be Saturday.

MR. BLASI: What would be the date, Mr. Kelly?

MR. DICKERSON: Which would be the 6th.

MR. FLORENCE: It looks like the 6th, Mr. Dickerson.

MR. DICKERSON: Fortunately for me, I'm a little ahead of you. Apparently Saturday

would be the 6th of October.

THE WITNESS: Correct.

MR. DICKERSON: Exhibit 46 will be received into evidence for what it's worth.

(Exhibit No. 46 was received in evidence.)

THE WITNESS: October 6th and October 8th.

MR. DICKERSON: Thank you.

MR. FLORENCE: You may sit down again, Mr. Kelly.

May I have just one short conference?

MR. DICKERSON: Let's take a minute.

(Discussion off the record.)

END 4

MR. DICKERSON: O.K., ladies and gentlemen, let's go.

Mr. Florence?

BY MR. FLORENCE:

Q. Mr. Kelly, could you tell us the proximity of Well No. 1 to the nearest edge of that water body?

MR. BLASI: Is that the trooper well?

MR. FLORENCE: The trooper well.

A. Approximately ten feet.

Q. Do you have an opinion as to the relationship of the marshy area and that body of water?

A. I would say the marshy area surrounds the pond on the westerly side, northerly side and easterly side, not quite so much the southern portion of the pond.

Q. Have you had a chance to observe the condition of the area around -- near and around the brook on any other dates than you've already testified as it relates to the flow of the Brown Brook?

A. I was on the site of -- after the storms and during the storms of June 28th, June 29th, and July 4th and 5th.

Q. What did you observe?

A. Well, flow within the brook and the pond areas and

speaking of the pond above the Cricket --

Q. When you refer to "the Cricket," I didn't mean to interrupt you but you refer to the Cricket Restaurant as we have heard before?

A. That's right. There's a dam behind it and then there's a pond above it, a water body. I observed that they were very muddy, probably had some silt and maybe even some sand within the water. It was very muddy.

Q. Did you observe the condition of the Port pond on that day?

A. Yes, I did.

Q. I show you Exhibit No. 47 for identification --

MR..DICKERSON: For identification, Exhibit No. 47 is a sheet of cardboard with six photographs attached and bearing the general caption "(Flooding) July 4th and 5th, 1973."

(The cardboard sheet containing the photographs described above was marked for identification as Exhibit No. 47, this date.)

MR. FLORENCE: Rather than admit -- I don't intend to put in anything or offer anything other than the photographs themselves and I would

agree that Mr. Blasi would so object.

MR. BLASI: I don't know what you've got. I haven't seen anything. You're passing documents around.

MR. FLORENCE: All right, I think properly so.

Q. First of all, Mr. Kelly, I'm going to ask you if these photographs are fair and accurate representations of observations you made on July 5th and July 4th, 1973.

MR. BLASI: I object to the question, "fair and accurate representations of his observations." It's a vague, improper question, improper identification of the photographs. No foundation has been laid.

MR. DICKERSON: I'm going to sustain the objection and I'm going to ask Mr. Florence to re-word the question and ask if the pictures are fair and accurate representations of the situations Mr. Kelly observed.

MR. FLORENCE: Fair and accurate representations of the situations Mr. Kelly observed on those days.

THE WITNESS: Yes, they are.

MR. FLORENCE: Now I'll offer them.

MR. BLASI: I have some voir dire
on that.

MR. DICKERSON: Now, if you'll relax
for a minute while Mr. Blasi and any other parties
have a look at them.

(Discussion off the record.)

MR. DICKERSON: Mr. Blasi?

PRELIMINARY EXAMINATION

BY MR. BLASI:

Q. Mr. Kelly, with reference to Exhibit 47 for identification, who placed these notations in ink on these separate photographs and in the margins?

A. I didn't.

MR. DICKERSON: Mr. Kelly, do you know
who did?

THE WITNESS: I believe Mr. Kipp
made -- took the pictures and made the notations.

Q. So, Mr. Kelly, these notations are not the observations
that you have testified to in this record regarding
these photographs?

MR. FLORENCE: We concede that.

5/1/5

(Howard A. Kelly, Jr.)

1253

We concede that that's correct.

MR. BLASI: Wait a minute, let him answer the question.

MR. FLORENCE: Well, he's my witness and I concede that the answer is that we didn't observe the notations obviously since they're in pen and ink.

5/2/1

BY MR. BLASI:

Q. Now, Mr. Kelly, is it unusual after a storm that, as you've testified to, I believe it was July 4th-July 5th, is it unusual for turbidity to occur in any body of water?

MR. FLORENCE: May I -- may I respectfully object. This might be proper for cross-examination but not as to the accuracy of the representation of the introduction into evidence of the photos.

MR. BLASI: I'm asking him. He has testified to certain observations which these photographs are supposed to reveal.

MR. FLORENCE: I'm just saying that they are -- the question is improper on voir dire. It may be on cross-examination a proper question

but as to the accuracy of that photograph which is the subject of the voir dire, that's an improper question.

MR. BLASI: That's just the point. That's exactly the point. This photograph may not be accurate.

MR. FLORENCE: He said it was.

MR. BLASI: He said it was a fair representation.

MR. FLORENCE: You may inquire --

MR. BLASI: Of what he observed.

MR. DICKERSON: Of the situation as he observed it.

MR. FLORENCE: You may inquire as to what he observed.

MR. DICKERSON: I made a general comment that was interjected to clarify the situation.

MR. BLASI: I may reserve my examination without burdening the Examiner further but I object to the introduction of this Exhibit with these notations. If we have another set of photographs without these notations, fine. This is prejudicial to the applicant. It has been admitted that these

were put on by Mr. Kipp who happens to be an objectant so therefore they are -- therefore, I think the exhibit is utterly worthless.

MR. FLORENCE: Mr. Dickerson, may I be heard with respect to the photographs?

MR. DICKERSON: Please. We've got several holes on those photographs, if I can speak loosely.

MR. FLORENCE: Mr. Blasi is only partially correct as to his conclusion. The value of the photographs is something for the Hearing Officer and not for Mr. Blasi. However, the photographs are introduced for the sole purpose and excluding the notations as I said before. The notations are not offered for evidence and since it's not a jury and since it's a hearing officer in the discipline in the area of this application, I believe that we could either take off the notation or offer them solely for what the photograph represents as the photograph was taken without the comments and additions as they are noted on those prints. We do not have another set of prints.

BY MR. BLASI:

Q. Did you take these photographs?

A. No, I did not.

MR. DICKERSON: Gentlemen, let's go off the record for a minute.

(Discussion off the record.)

MR. DICKERSON: We'll continue with --

MR. BLASI: Is that last on the record?

MR. DICKERSON: It wasn't but I'm going to handle that right now. We will continue with the examination of Mr. Kelly. Mr. Florence, you may refer to the Exhibit 47 for identification. I'm going to reserve on receiving it into evidence until Mr. Blasi examines on it.

DIRECT EXAMINATION

BY MR. FLORENCE: (Continuing)

Q. Now, Mr. Kelly, I'm going to ask you from left to right, top to bottom, to tell me where in relation to the scene here this scene is located on Map 46 in evidence.

MR. BLASI: See, that's what's unfair about the exhibit when you go and put six pictures

on one sheet of paper. Go ahead.

MR. DICKERSON: Would it --

MR. FLORENCE: Just describe it generally for us first and then if there's a request to mark it on the map I will.

MR. DICKERSON: Just a minute.

MR. FLORENCE: Let him testify first.

MR. DICKERSON: Do you want those photographs marked as letter designators attached to that exhibit?

MR. BLASI: I should think there ought to be some identification.

MR. DICKERSON: O.K. Let's have the photo sheet map. On each photograph I'm going to letter the upper left, the letter designations "A," the upper right "B," "C," "D," "E," and "F" as soon as I get a pen to mark these up so it will take. Then we will continue and we will have Exhibit 47-A through F.

(The photographs were marked as described above.)

MR. DICKERSON: Because of the difficulty in getting a ballpoint pen to mark Exhibit 47 on the photographs, I have leaned on it a bit. It has, in fact, become engraved into the face of the photographs. Letters A through F have then been darkened with a marker pen and sealed with tape so they will not be removed.

BY MR. FLORENCE:

Q. Directing your attention to Exhibit 47-A for identification, could you describe where that -- what scene that photograph depicts?

A. Exhibit A?

Q. Yes.

A. Is just in front of Mr. Kipp's workshop area as looking towards the well in a northerly direction.

MR. DICKERSON: Which well, sir?

THE WITNESS: Well 1.

BY MR. FLORENCE:

Q. What about photograph B?

A. That's taken where the service road crosses the stream, and it's looking in a westerly direction towards the well, Well 1.

Q. Photograph C.

A. This is looking in a northerly direction where the main entrance road crosses the brook. It's looking up that area which is an elongated pond.

Q. "D"?

A. "B" is a picture taken south of the Port Pond and looking towards Warren Street.

Q. "E"?

A. "E" is taken from Route 202 looking towards the Firemen's Pond.

Q. "F"?

A. "F" is taken from Route 202 looking in a northerly direction towards the Port Pond.

MR. FLORENCE: I offer it.

MR. BLASI: Let me look at it. It's still subject to cross. Your ruling still stands, doesn't it?

MR. DICKERSON: Sure.

MR. BLASI: Go ahead, Mr. Florence.

MR. FLORENCE: You may cross.

MR. DICKERSON: Are you finished with Mr. Kelly?

MR. FLORENCE: Yes.

MR. BLASI: May I ask you what time you plan to go, Mr. Examiner? I wanted an opportunity to look at these maps.

MR. DICKERSON: Well, shall we start with any other questions first? I can reserve your right to cross, but I mean if anybody has a few brief questions and then it might be time for a lunch break.

MR. BLASI: You mean anybody else?
Yes.

MR. DICKERSON: Mr. Manna, do you have any questions of this witness?

MR. MANNA: Yes, just a few quick ones.

CROSS-EXAMINATION

BY MR. MANNA:

Q. Just a little clarification of the maps you have submitted. You say these were done with U. S. G. S. bases. The Exhibit 45 is prepared from a U. S. G. S. base?

A. Yes, additional information was added to that, but generally the datum was U. S. G. S.

Q. Was the drainage area computed from the blown-up

version or from the simplified version, or was it computed from the U.S.G.S. base also?

A. It was computed from this map.

Q. You were not aware of any map accuracy standards that would apply to something like this, are you? What I'm getting at, obviously this is a 50-foot contour interval, and I'm just concerned over its accuracy, the accuracy of the reproduction.

A. Yeah. What we did was trace out these drainage areas on the U.S.G.S. map and then compare them and then also establish them on this map.

Q. Now, we are also speaking of elevations to the nearest 100th of a foot here.

A. Yes.

Q. Now, may I ask, these are all U.S.G.S. datum you were referring to?

A. No.

Q. They're not. What datum are those from?

A. It's an arbitrary datum.

Q. Referenced --

A. To Warren Street.

Q. To Warren Street?

A. Oh, excuse me, to 202.

Q. The center line of Warren Street at 202?

A. Using the existing culverts that crossed 202.

Q. You made no measurements farther up on the Heritage property than from the stated datum?

A. No, I've never entered the Heritage property.

Q. The revisions quoted were cited on Exhibit 45 and Exhibit 46 --

A. Yes.

Q. -- can you tell me exactly what those were, how the original drawing was modified?

A. Yes. Initially we studied Brown Brook, Areas A and B, and then we added on at later dates the tributary to Plum Brook and then Plum Brook itself, and then to get the whole shape of how the different basins looked and appeared, then we added the areas below the -- to the final tributary to the reservoirs of the city.

Q. No changes in topography, or basically the Areas A, B and C -- or, at least, A and B were not changed from the original drawing? In other words, these were the original -- this was the original content of the first map. You've since added these. Were there any changes in A and B when you added, say,

E, F, G, H and I (indicating)?

A. We hadn't computed them then, so what we tried to do because of the case before us is be very careful about the computations and the extent of the ridge lines which form the catchment areas.

Q. But there was no change in A and B as a result of the introduction of Areas E, F, G, H?

A. No.

Q. No. Now, I believe the water elevations were based on surveys done the 6th and the 8th of October. Is that correct?

A. That's correct.

Q. Would you consider this to be a normal elevation for this time of year or for any time of year? How would you relate the water level as of that date to anything that you'd like?

A. Well, you know, we hadn't had any substantial rain, so the water level reflects a dry period.

Q. O.K. Now, with regard to the photographs of that last exhibit, the July 5th storm or the end of June storm, in your estimation, would you say -- or what frequency would you assign that as far as flood frequency in year storm?

A. I didn't make any measurements of the frequency.

Q. Are you aware of any other measurements or any other calculations or opinions, approximations, in this area generally of the magnitude of that storm?

A. Not specifically.

MR. MANNA: Not specifically, O.K.

Thank you.

MR. DICKERSON: Mr. Alexander or Mr. Weber?

MR. ALEXANDER: Not at this time.

MR. DICKERSON: Mrs. Port, do you have any questions of this witness?

MRS. PORT: No, I don't.

MR. DICKERSON: Thank you. Off the record.

(Discussion off the record.)

MR. DICKERSON: Back on the record.

Mr. Oehler, do you have any questions of this witness?

MR. OEHLER: No, I don't.

MR. DICKERSON: Thank you. Mrs. Daly?

MRS. DALY: Nothing.

MR. DICKERSON: Mrs. Eustace, anyone else?

(There was no response.)

MR. DICKERSON: Mr. Blasi, I'll give you a break in a couple of minutes by asking a couple that I have, and then if you want to break for lunch and we'll finish up.

MR. BLASI: Yes.

MR. DICKERSON: Not that I hope it will take all afternoon.

MR. BLASI: No, it will save a lot of time.

MR. DICKERSON: No problem. I recognize that.

Mr. Kelly, you made one comment on the -- I'd better refer to it as Pond X, the pond or body of water indicated with a green marker pen on Exhibit 46, that the northerly portion was wooded. Just for my own information to clarify the relationship of this body of water, does it have a distinct shoreline, or is it water overextending into standing trees, or is it the surrounding area that's wooded?

THE WITNESS: Well, the shoreline is

clear.

MR. DICKERSON: It's a distinct shoreline with trees adjacent to it and back on the land.

THE WITNESS: Trees, and shrubs and various types of growth.

MR. DICKERSON: Brush.

THE WITNESS: Brush, exactly.

MR. DICKERSON: It's not a situation of water standing, if I can use the term, on flooded ground with standing trees or anything.

THE WITNESS: No, sir.

MR. DICKERSON: O.K., thank you. You mentioned that you want to check the areas with respect to Exhibit 45. Was it your testimony that the areas on the U. S. geological survey maps were also planimetered to determine the areas?

THE WITNESS: Not completely, no.

MR. DICKERSON: You just spot checked them essentially against this map?

THE WITNESS: Yes, sir.

MR. DICKERSON: And the area determinations were taken from this map.

(Howard A. Kelly, Jr.)

1260-A

THE WITNESS: Yes, sir.

MR. DICKERSON: Let's go to lunch.

MR. BLASI: What time?

MR. DICKERSON: We will resume at

1 o'clock.

(Whereupon, a luncheon recess was
taken.)

AFTERNOON SESSION

1:30 P.M.

MR. DICKERSON: I think we'll resume at this time. Mr. Kelly is about to be cross-examined by Mr. Blasi.

HOWARD A. KELLY, JR.,
having been previously called as a witness in behalf of the objectant Kipp, resumed and testified further as follows:

MR. DICKERSON: Mr. Blasi, please.

CROSS-EXAMINATION

BY MR. BLASI:

Q. Mr. Kelly, when were you engaged by Sun Enterprises?

A. During June, I think, of '73.

Q. And that was after the application was filed with the Department of Environmental Conservation in this matter; am I correct in that?

A. I'm not sure exactly when the date of the application.

Q. Did you hear that it was filed on April 26th of 1973?

A. That could be so, sir.

Q. Did you see the notice in this matter?

A. Yes, sir, I read the notice.

Q. And were you told that Mr. -- that Sun Enterprises was going to oppose the application of Henry Paparazzo and Curtis McGann at that time?

MR. FLORENCE: I think I'm going to object to this questioning.

MR. BLASI: Cross-examination.

MR. FLORENCE: It's a question that requires a hearsay answer.

MR. DICKERSON: Do you want to rephrase the question, please?

Q. Did your client, Sun Enterprises, tell you that it was going to oppose the application of Henry Paparazzo and Curtis McGann, this water supply application?

A. No, they didn't. Initially, I was --

Q. Yes or no, please.

MR. FLORENCE: He's answered it then.

A. No.

Q. But you saw the notice of application, am I correct?

A. Yes, I did.

Q. Now, Mr. Kelly, you have been present throughout all

of these proceedings, have you not?

A. Yes, I have.

Q. And you were present every day during the testimony?

A. Yes, I was.

Q. Were you present on October 5th, 1973 which was last Friday, I believe?

A. Yes, I was.

Q. Were you engaged as one of the expert witnesses on behalf of Sun Enterprises?

A. Not initially, no.

Q. Well, when you -- when you were in court -- or, in court, excuse me -- when you were here before Mr. Dickerson during all of these days, was it your purpose to testify as an expert witness in this matter?

A. I wasn't sure if I was going to testify or not. I was just to gather information to provide for the attorney.

Q. When you prepared these exhibits, you prepared them initially in July, did you not?

A. Yes, I --

Q. I think on Exhibit 45, for example, 9/25/73, but the first preparation was 7/27/73, am I correct?

A. That's correct.

Q. Well, when you prepared this Exhibit 45, you expected to testify here, did you not?

A. Initially those maps were prepared --

Q. Mr. Kelly, I don't want to argue with you; that calls for a yes or no answer. Did you or did you not expect to testify?

A. No, I didn't expect I would be testifying.

Q. When did you first learn that you were expected to testify?

A. Friday.

Q. And here in court on Friday, here before Mr. Dickerson on Friday?

A. No, at a meeting with the principals involved in Sun Enterprises.

Q. When, what date?

A. Last Friday.

Q. Last Friday. Did you refuse to testify last Friday?

A. Well, I was under the impression --

Q. I would like a yes or a no answer to that. Did you refuse to testify last Friday?

MR. FLORENCE: That's a non-sequitur to the previous answer and it can't be answered with

a yes or a no.

MR. BLASI: It certainly can be answered. He was here on Friday and I want to know whether he was ready or not ready to testify.

MR. FLORENCE: The answer was that he was asked --

MR. BLASI: Just a minute, don't you give him the answer. You've been going after me on that.

A. No, I don't believe I was ready to testify.

Q. Wasn't -- when you were retained, did it include your testimony or did it not include your testimony?

A. I was retained on a per diem basis for any work connected with the -- with Sun Enterprises and primarily initially, I was retained to work on development plans for the use of their property.

Q. You were engaged, were you not, to prepare exhibits and data in opposition to the application of Henry Paparazzo and Curtis McGann by Sun Enterprises; yes or no, Mr. Kelly?

A. Would you say that again, please?

MR. DICKERSON: Would you please read it?

(The pending question was read
by the reporter.)

THE WITNESS: Yes, I was.

Q. And you were here last Friday, were you not?

A. Yes, sir.

Q. And you are testifying today as an expert witness
on behalf of these objectants, are you not?

A. Yes, I am.

Q. I would like the record -- I would like to call the
Examiner's attention to page 1209 of this record.
Mr. Kelly, was there any reason why you could not
have testified last Friday?

A. Well, some of the information was not complete. I
wanted to wait until the results of the field
surveys.

Q. These exhibits were prepared long before last Friday,
were they not?

MR. FLORENCE: Which exhibit are
you referring to?

MR. BLASI: I'm referring to Exhibits
45 and 46.

MR. FLORENCE: The testimony is
contrary to that.

MR. BLASI: They're dated, Mr.

Florence, 10/1/73 was the last revision on
Exhibit 46 and 10/1/73 was the last revision on
Exhibit 45.

MR. FLORENCE: The exhibits or the --

MR. BLASI: The exhibits.

MR. FLORENCE: -- information supplied
on top of the exhibits.

MR. BLASI: The exhibits.

THE WITNESS: The maximum form you
see them, they were not ready last Friday.

(Continued on page 1274)

BY MR. BLASI:

Q. Then that date on there is not a true date?

MR. FLORENCE: That's not what he said. I object.

MR. DICKERSON: Noted. Carry on, Mr. Blasi.

THE WITNESS: The color coding took place later.

BY MR. BLASI:

Q. And you did not note the revision on those maps, on those exhibits?

A. Evidently not.

Q. You weren't in Washington last Friday, were you?

A. No, sir.

Q. Now, Mr. Kelly, what is the business of Sun Enterprises?

MR. FLORENCE: If he knows.

MR. DICKERSON: What was that?

MR. FLORENCE: I said, "If he knows."

MR. DICKERSON: Mr. Kelly can answer the question the best he can. If Mr. Kelly doesn't know, that's a proper answer.

THE WITNESS: As I understand it,

they hold a certain amount of land, and Mr. Kipp operates -- has the operation in the gravel -- sand and gravel business.

BY MR. BLASI:

Q. He's a gravel operator, right?

A. Yes.

Q. Are you familiar with the provisions of the zoning ordinance of the Town of Somers with relation to gravel operation?

A. Not in complete detail.

Q. Do you know it's a fruits of the earth ordinance? Do you know what I mean by that?

A. I know it requires a special permit from the Board of Appeals.

Q. Do you know how many permits Mr. Kipp has?

A. I have no idea.

Q. Did you inquire as to whether any excavation was going on under any permits?

A. I believe Mr. Kipp indicated that he has permits.

MR. FLORENCE: I'm going to object to the further line of inquiry. I'm reluctant to interject, but I'd like to stay, if we could,

relative to the issue of the land and those matters which are --

MR. BLASI: It's germane --

MR. DICKERSON: Mr. Kelly has taken it as he so far indicates his knowledge goes.

BY MR. BLASI:

Q. Mr. Kelly, did you testify that you inspected this property before you came on the stand?

A. Yes, I did.

Q. You walked over it, did you not?

A. Yes, I did.

Q. Did you notice whether there were any gravel operations conducted on the property?

A. Well, there were -- there was, there is, some equipment on the job.

Q. What kind of equipment?

A. Trucks, large trucks.

Q. How many?

A. Six or eight perhaps.

Q. Are there any -- is there any excavating machinery there?

A. Yes.

Q. Did you notice in what area, if any, excavations

were taking place?

A. I was never there when any of the machines were working, but I would say the -- it would appear that the general area of excavation would be southwest of the pond or the reservoir.

Q. Do you know whether excavating took place on this property prior to the time that Sun Enterprises acquired it?

A. Through hearsay knowledge, I understood that somebody else had worked the property, yes.

Q. When you inspected this pond, the large pond, the first pond, did you examine it to see whether or not any excavation had taken place with respect to that pond?

MR. FLORENCE: As of when?

MR. DICKERSON: Which pond, the one with the "X"?

MR. BLASI: X Pond.

MR. DICKERSON: X Pond, reservoir or whatever.

MR. BLASI: X Pond.

MR. FLORENCE: May I inquire as to what date?

MR. BLASI: Let him pick a date, when he inspected it.

THE WITNESS: I didn't see any evidence that excavation was continuing at the pond. It was full of water.

BY MR. BLASI:

Q. Did you know how deep that pond was?

A. Only from testimony I heard it here that it was 50 feet deep.

Q. Did you know that the previous owner had excavated in that pond?

MR. FLORENCE: May I object to that as an improper question? It starts with a premise that maybe Mr. Blasi has personal knowledge of but which is not any part of the testimony here.

MR. BLASI: I asked him did he know.

MR. FLORENCE: It's an improper question.

MR. DICKERSON: O.K. I'm going to ask Mr. Blasi to rephrase the question.

BY MR. BLASI:

Q. Did you make any tests to indicate what excavation took place in the X Pond?

A. No, I didn't.

Q. Did you measure the depth of the pond?

A. No, I did not.

Q. So this 50 feet -- who advised you that it was 50 feet?

MR. FLORENCE: Again, that's a bad question in terms of its premise in that the answer is completely -- the prior answer is completely inconsistent with the premise required with the question.

MR. BLASI: He just testified --

MR. DICKERSON: He mentioned that his source of information --

MR. FLORENCE: He heard Mr. Bibbo say it here.

MR. BLASI: He didn't say Mr. Bibbo.

MR. FLORENCE: Didn't he say that?

MR. BLASI: No, sir.

MR. FLORENCE: I misunderstood, and I apologize to both of you.

What was the question? I didn't mean to interrupt.

MR. DICKERSON: Do you want the

question read back, sir?

MR. BLASI: Yes, sir.

(The pending question was read by the Reporter as follows:

"Question: So this 50 feet -- who advised you that it was 50 feet?")

MR. DICKERSON: I heard what Mr. Kelly said, but apparently it didn't make it to the record. As I recall, Mr. Kelly said that he had heard it in testimony here, unquote.

BY MR. BLASI:

Q. Now, Mr. Kelly, let me refer you to Exhibit 46. I believe that in the course of your testimony, you traced the course of this Brown Brook. Am I correct?

A. Yes, sir.

Q. Now, as it comes into the Kipp or Sun Enterprises property, is that stream crossed at any place?

A. Not until it reaches the place --

Q. Well, will you come up to your exhibit? The stream comes into the so-called Firemen's Pond. Correct?

A. Yes, sir.

Q. Then it proceeds in a southerly direction generally.
Am I correct?

A. Yes, sir.

Q. Now, is there a crossing of that stream at a point
south of the Firemen's Pond?

A. Yeah, the crossing would be at this location
here where the service road comes in.

MR. BLASI: All right. Now, may I
ask, Mr. Examiner, that that be marked as one of
the crossings?

MR. DICKERSON: Please. I've given
Mr. Kelly a blue marker pen. I think that's a
color we haven't used on that exhibit. Let Exhibit
46 be marked with a blue marker pen, and I think we
can use numbers to indicate crossings.

BY MR. BLASI:

Q. Yes. All right, do you want to mark it?

A. (Witness indicates.)

Q. Crossing 1. Now, what does that consist of?

A. I believe there are three pipes there,
12-inch, 18-inch, 15-inch, and a gravel road
crossing over.

Q. In other words, the pipes go under the gravel road?

A. That's correct.

Q. And to the extent that the gravel road is over those pipes, that constitutes a form of the retention of the water other than the pipe. Am I correct?

A. Yes.

Q. All right. Now, where is the next crossing?

A. (Witness indicates.) That's in an area --

Q. Mark it "2," please.

A. That's in an area east of the pond, and there are two 24-inch corrugated metal pipes there.

MR. DICKERSON: Was that two 24-inch?

MR. BLASI: Two 24-inch.

BY MR. BLASI:

Q. So again I ask you, to the extent that except for the pipes the material that constitutes this crossing once again constitutes a stoppage or impediment of the flow of the water. Am I correct?

A. Yes, it provides a service over the -- you know.

Q. A service road over?

A. Over the pipes.

Q. Right. Now, would you mark the next one? Put a "3" on there.

A. (Witness indicates.)

Q. And what does that consist of?

A. That consists of two 36-inch corrugated metal pipes with a road over them.

Q. And would you mark the next one, please?

A. (Witness indicates.)

Q. And what does that consist of?

A. That's the main road from Route 100 into the property, and on the upstream side, I believe it's two 36-inch pipes. On the downstream side it's part of a reinforced concrete box culvert or bridge.

Q. All right. Will you mark the next one, please?

A. (Witness indicates.)

Q. And will you tell us what that consists of?

A. That's a reinforced concrete bridge. I didn't measure the size of the opening except to note when I walked over it that the concrete was in bad repair.

Q. But you don't know the size of it?

A. No, I don't.

Q. All right. Now, then we go into this basin or water or pond or call it what you will, and what's at the end of that one? What is that?

A. It's a concrete dam.

Q. It's a concrete dam. How high?

MR. FLORENCE: What side?

MR. DICKERSON: Correction -- or let me interrupt, not a correction. That's Point No. 6?

A. Point 6.

MR. DICKERSON: All right. Thank you.

MR. BLASI: It's a dam. Do you want another color, Mr. Examiner?

MR. DICKERSON: No, no, as long as --

Q. What is that, a dam?

A. Yes, sir.

Q. And how high is it?

A. It appears to be ten or twelve feet high. ✓

Q. And are there any openings in the dam, any sluices of any kind?

A. Yes, there seems to be a weir across the top of the dam.

Q. Across the top of the dam? ✓

A. Yes, sir.

Q. Is there anything at the bottom of the dam or six inches or so or a distance from the bottom of the dam?

A. Not that I know of.

Q. Then Brown Brook continues south and it goes into another pond, am I right?

A. Yes, sir.

Q. Now, is that pond on Mr. Kipp's property?

A. No, it isn't.

Q. It's on property to the south?

A. Property to the south.

Q. And then Brown Brook continues southerly into -- into another pond which is at the northerly edge of an inlet of the Muscote Reservoir, am I correct?

A. Yes, sir.

Q. All right. Now, tell me something: What is the distance from the edge of the Firemen's Pond to the entrance at the Muscote Reservoir?

A. Didn't measure it.

Q. You didn't measure it?

A. No, sir.

Q. You may sit. I don't want to keep you too long.

MR. DICKERSON: And just for the sake of clarity, while you're passing by here, the dam is also the -- as indicated by Item No. 6 on Exhibit 46, the same as the water body indicated as "Cricket Rest." on Exhibit 23, is that correct?

THE WITNESS: Yes.

MR. DICKERSON: Thank you.

Q. Now, Mr. Kelly, you reviewed this property with your clients, did you not?

A. Yes, I did.

Q. Do you know when these various crossings were made, the dates of them?

A. No, I do not.

Q. Are you familiar with the provisions of the zoning ordinance relating to the requirements, particularly Section 71.0 and it's Title I --

MR. BLASI: And, Mr. Examiner, this ordinance is in evidence, of course.

MR. DICKERSON: Exhibit 13, as I recall.

MR. BLASI: Yes.

MR. DICKERSON: Let me correct my recollection. Right, Exhibit 13.

Q. Are you familiar with Section 71.00, Title I of the Zoning Ordinance of the Town of Somers?

A. No, I'm not.

MR. BLASI: May I have the exhibits, Mr. Examiner?

MR. DICKERSON: Let's relax for a minute. I'm going to have to dig.

MR. BLASI: I have a copy here if it will help.

(The exhibit was offered to Mr. Blasi.)

MR. BLASI: Thank you.

Q. Mr. Kelly, do you know whether any applications were made to the Department of Environmental Conservation with respect to any of these crossings?

MR. FLORENCE: As of when?

MR. BLASI: As of any time.

MR. FLORENCE: Since he was retained as an engineer?

MR. BLASI: Does he know whether any applications were made to the Department of Environmental Conservation for permits to make these crossings 1 to 5 as shown on Exhibit 46?

MR. FLORENCE: Until we have an

establishment of when they were put in, I'm going to object to the question as to its relevance and its competency.

MR. BLASI: If he knows.

MR. DICKERSON: Do you have any answer?

THE WITNESS: No, I don't know.

MR. DICKERSON: O.K.

Q. Are you familiar with the precise areas, with the areas -- let me withdraw the question.

MR. BLASI: By the way, I would like at this time -- and I don't want to frighten you, Mr. Examiner, I'm just going to have this marked for identification and I have a reduced photograph.

MR. DICKERSON: Then we better mark the reduced copy for identification and you can, if counsel agree, you can refer to the larger copy. Does anybody --

MR. BLASI: I would like that that be marked for identification, both the -- why don't we mark the small one?

MR. DICKERSON: Well, with counsel present, I'll mark the small one.

MR. BLASI: You can check this out and see. I'm trying to be merciful on the Examiner.

MR. DICKERSON: However, if we have to receive it, we will.

MR. BLASI: Mr. Examiner, I'm going to say this to you: I would like this Exhibit marked and we would be happy to have it shipped to the Department of Environmental Conservation at Albany so that you don't have to carry it with you.

MR. DICKERSON: Actually, since I have my personal station wagon with me today, I think I can manage if I get a little assistance getting it to the car. I honestly do not know how we're going to file it.

MR. BLASI: That's the reason that I gave you the reduced one, the one reduced.

MR. DICKERSON: Is there any problem with using the smaller copies?

MR. FLORENCE: I don't see any. I don't know what's intended yet.

MR. DICKERSON: Well, a photograph --

MR. FLORENCE: It's a different photograph.

MR. DICKERSON: I'll comment on that. .

A photograph has been marked for identification as Exhibit 48. It shows a landscaped water body and I will not further identify it at this time. I will note that to my right we have a large approximately three, three and a half by five or six foot blown-up reproduction of this photograph with the exception that the blown-up reproduction has been cropped so that the approximate bottom half inch of Exhibit 48 is not depicted thereon.

MR. BLASI: That is correct, that is correct.

(A photograph was marked for identification as Exhibit No. 48, this date.)

MR. BLASI: Are we having a conference?

MR. DICKERSON: Mr. Blasi, do you wish to describe this epic work?

MR. BLASI: It is epic.

MR. DICKERSON: If you turn the other way, I apologize on Mr. Kelly's behalf for turning his back on the audience, but I want him to see the picture and also be somewhat facing the scenographer.

So why don't you take your chair and transport it

over next to Mr. Blasi's table?

MR. BLASI: You can sit right next to me and be very comfortable.

Q. Now, Mr. Kelly, you have been on the property as you have testified. Does this photograph indicate and is it a fair representation of the area of the Sun property looking from south to north up to the Route 202?

A. Yes, it shows a portion of the Sun property.

Q. Now, the pond or body of water which is shown -- and I think maybe we can mark it on there.

MR. FLORENCE: I hate to mark that one. Mark the small one.

MR. BLASI: Mark it on the small one.

MR. DICKERSON: Do you want it marked, outlined, or just generally marked with some reference?

MR. BLASI: I think just a number.

MR. DICKERSON: Exhibit 48 will be marked in pencil with an "X" indicating the body of water to which we are referring. It stands out quite distinctly as a dark black object on the face of the photograph.

Q. Now, Mr. Kelly, that body of water is the same body

of water which you, in your Exhibit 46, depicted as "X" or marked as "X", am I correct?

A. Yes, sir.

Q. That's this one here (indicating)?

A. Yes, sir.

Q. All right? Now, where are the excavations with respect to that body of water?

MR. FLORENCE: I don't understand the question.

Q. The gravel excavations, where are they with respect to that body of water?

A. They're south and to the west of the body.

Q. Would you indicate please, if you know?

A. As I indicated, I never did see anybody excavating except when the present equipment was there, but I would say over in this area and possibly over in here (indicating).

(Continued on page 1293)

BY MR. BLASI:

Q. Well, what you observed was obviously a gravel operation going on in this property, wasn't it? As an engineer, wouldn't that indicate to you there was a gravel operation going on?

A. Yes.

Q. And it was in the areas that you have pointed out that the gravel operation is going on?

A. Yes.

Q. Now, these roads and these crossings are all in connection with this -- these different gravel operations, am I correct?

A. Which roads?

Q. One, two, three, four, five, on Exhibit 46.

A. Those roads are generally to the north and to the east of the pond.

Q. Do you see roads on Exhibit 48?

A. Yes.

Q. And what is the purpose of the roads as depicted on Exhibit 48, if you know?

A. Well, the roads in the lower portion would be used to move equipment.

Q. Now, I call your attention to the westerly part of

the X Pond. Do you notice that there's excavation going on? Do you notice that the excavation has taken place in the area to the west of the X Pond?

A. Yes.

Q. Do you know whether that excavation is going on now?

A. No, I do not.

Q. Do you know whether any permits have been obtained from the Department of Environmental Conservation to do that excavating work?

A. No, I do not.

Q. Do you know whether permits are in effect from the Town of Somers to do that excavating work?

MR. FLORENCE: What excavating work?

MR. BLASI: The one he's described to the west of that lake.

MR. FLORENCE: He said he didn't know.

MR. DICKERSON: He hasn't answered the last question as to whether a permit had been granted by the town.

MR. BLASI: He hasn't answered.

THE WITNESS: I understand that

permits have been granted by the Board of Appeals.

BY MR. BLASI:

Q. Do you know, Mr. Kelly, whether the ordinance requires the refilling to the natural grade where excavations are done?

MR. FLORENCE: I'm going to object to the line of questioning again.

MR. BLASI: If he knows.

MR. FLORENCE: There's no establishment yet by this witness of any work going on or any excavation, so I submit that --

MR. DICKERSON: Your objection is noted. It's also overruled. With Mr. Blasi's qualification, if the witness can answer it.

THE WITNESS: I'm not familiar in detail with the Town of Somers' ordinance. I've never had the occasion to apply it.

BY MR. BLASI:

Q. Mr. Kelly, you are here as an expert witness, and the purpose of your testimony is to bring up certain facts or opinions on your part with reference to the effect of the Brown Brook as the Brown Brook is used by this applicant and to the

physical characteristics of downstream of Brown Brook. Isn't that essentially what you are here to testify to or to give proof about?

MR. FLORENCE: I think that the direct examination didn't ask for any opinion. It did ask for a series of facts.

MR. BLASI: He asked him for an opinion relating to Brown Brook and the physical characteristics as they appeared, and I think the Examiner has mentioned and permitted you to go into the characteristics of Brown Brook as it left the applicant's property, crossed into the right-of-way of the State of New York, entered into the Firemen's Pond and then proceeded south all the way down to the Muscoot Reservoir, at least on his property to that extent.

MR. DICKERSON: Can you reread the question back, please?

(The pending question was read by the Reporter.)

MR. DICKERSON: I am going to let Mr. Kelly answer the question with the comment that we are not interested only in the use of Brown Brook

but in the effect of Brown Brook --

MR. BLASI: I'll stand corrected.

MR. DICKERSON: -- on the applications before us. Answer the question if you can.

THE WITNESS: Well, to the extent that I've testified, that's about all my observations have been.

BY MR. BLASI:

Q. You did not examine the files of the Zoning Board of Appeals of Somers with respect to the nature and extent of the permits granted to Sun Enterprises.

A. No, I didn't.

Q. So that in coming to your observations or coming to your conclusions, you did not apply the provisions of the zoning ordinance of the Town of Somers with respect to excavations. Am I correct?

MR. FLORENCE: I'm going to object to the question. There's no testimony yet as to any actual operation or the application of the zoning ordinance except that it's a fact that it's in evidence for whatever value that might be, but there's no testimony and, therefore, the premise is kind of crazy in the question and, therefore,

it really can't be answered.

MR. BLASI: Mr. Florence --

MR. FLORENCE: It's a little bit like when did you stop beating your wife? If you don't establish the question before you take off on the premise, then, of course, he can't answer the question either accurately or inaccurately.

MR. BLASI: May I answer? I think you missed the point, Mr. Florence.

MR. FLORENCE: It may truly be that I have. As I understand the question, it's a false premise.

MR. BLASI: No, you have changed the question around. I asked Mr. Kelly, an engineer hired by you --

MR. FLORENCE: Well, that's almost correct.

MR. BLASI: -- your client whether he took into consideration the requirements of the zoning ordinance which is in evidence and of which the Examiner has taken judicial notice as to the effect on the physical characteristics of the property of Sun Enterprises.

MR. FLORENCE: It assumes that the zoning ordinance will have some operative effects.

MR. BLASI: It speaks for itself, and I refer the Examiner --

MR. DICKERSON: I'm going to let Mr. Kelly answer the question if he can.

BY MR. BLASI:

Q. Are you able to answer that?

A. No, I didn't.

Q. Mr. Kelly, along Route 100 there is what was the old Baptist Fresh Air Home, which I believe is now the office of Sun Enterprises. Am I correct?

A. Partially, yes.

Q. One of the buildings.

A. Yes.

Q. But that building fronts on 202, am I correct?

A. Route 100.

Q. I mean Route 100. I beg your pardon, Route 100. Now, then there is another building which is the -- a residential building which I believe is occupied by Mr. Kipp or somebody in his family. Is that correct?

A. Yes, there is.

Q. And then there is the Cricket Restaurant.

A. There's a gas station in between.

Q. A gas station and the Cricket Restaurant. And all of those structures are along 202. Am I correct?

MR. FLORENCE: No, Route 100.

BY MR. BLASI:

Q. I mean Route 100.

A. Yes.

Q. Now, aside from those structures, are there any other buildings or improvements of any kind on the property of Sun Enterprises?

MR. FLORENCE: May I ask for a qualification of the question? Are you referring to the property of Sun Enterprises that's between Routes 202 and Route 100? And if you qualify it that way, I'd permit him to answer if he knows.

MR. BLASI: I am asking him what buildings are on the property of Sun Enterprises. I tried to facilitate the question by spotting them along Route 100. Now, I can withdraw the question and ask him what buildings are on the property of Sun Enterprises, and he can answer that question. Would you rather have it that way?

MR. FLORENCE: I don't care. I don't think he can answer it any way. It's all right with me.

MR. BLASI: He can't answer it?

MR. DICKERSON: Your expression is noted, Mr. Blasi.

Mr. Kelly, do you want to field that question?

THE WITNESS: There's a small building that's some distance from Route 100 which is maybe in back of the State Police barracks, in that vicinity, which seems to be unoccupied. There's Mr. Kipp's work area and workshops, and then Well 1 which is here adjacent to the pond.

BY MR. BLASI:

Q. You consider that a structure?

A. Well, it's --

Q. Is that a building?

A. Well, there is a structure some 10 by 20 feet and 15, 12, 10 feet in height which houses --

Q. It's part of the well, right?

A. Yes.

Q. O.K. Now, calling your attention to the right-hand

side of Exhibit 48 -- and I am pointing now --
what are these things in here?

A. Tractor-trailers.

Q. And excavating equipment, right?

A. Yes.

Q. And may I call your attention to this spot on the
right-hand side, pointing to about four-tenths of
the way on the right-hand side on Exhibit 48?
Could you tell us what that is up there?

A. I can't tell from the photo.

Q. You inspected the property, right? Do you remember
seeing that?

A. No, as a matter of fact, I don't.

MR. BLASI: Very good, sir. I
would like that exhibit -- I offer that exhibit in
evidence, Mr. Examiner. He has identified it.

MR. DICKERSON: Exhibit 48, the
smaller one?

MR. FLORENCE: To the extent that
he's identified. As of what date?

MR. DICKERSON: Can we have a
stipulation, or at least is this a statement of
accuracy, that the date indicated on the back is

the date the photo was taken?

MR. BLASI: Yes, it was taken April 14 of '73.

MR. DICKERSON: Any objections?

MR. FLORENCE: To the extent that it purports to show certain points of the Sun Enterprises parcel.

MR. DICKERSON: As discussed during the cross-examination.

MR. BLASI: Yes.

MR. FLORENCE: Yes.

MR. DICKERSON: Exhibit 48 is received into evidence.

(Exhibit No. 48 was received in evidence.)

MR. FLORENCE: As long as it doesn't purport to be a true and accurate reflection of what exists today.

MR. DICKERSON: With the notation that the photograph was taken on April 14th, 1973.

BY MR. BLASI:

Q. Let me bring it down to date. Mr. Kelly, you said you were on the property on Saturday, weren't you?

A. Yes, I was.

Q. Were there any changes on this since Saturday -- since April 14th that you noted on Saturday? A few less trucks maybe?

A. Yes, there are a few --

Q. A few more?

A. A few less trucks perhaps, and I never saw any of this (indicating). Wherever it was, it's been removed.

Q. All right. Mr. Kelly, do you know whether --

MR. FLORENCE: Now, wait a minute.

I don't mean to interrupt, and I am very reluctant to interrupt, but I'm not sure -- I'm not sure if we had an offer for evidence. I know it's marked for identification.

MR. BLASI: No, it was identified by him.

MR. FLORENCE: Have you made an offer of it?

MR. BLASI: I'm offering it in evidence.

MR. FLORENCE: May I inquire?

MR. BLASI: Yeah.

MR. DICKERSON: We just agreed there was no objection to receiving it into evidence. However, if --

MR. FLORENCE: I will withdraw it.

MR. DICKERSON: If you have a pertinent question that you really think is necessary to ask, please do so.

MR. BLASI: I haven't finished my cross, but it's all right.

MR. DICKERSON: If you have a question about this object or unidentifiable mass -- Mr. Kelly can't identify it.

MR. BLASI: We will stipulate that all parties can go down and look at the unidentifiable mass.

MR. FLORENCE: That's a generous offer on somebody else's land.

MR. DICKERSON: I'll note for the record your stipulation has not been agreed to by all parties.

MR. BLASI: Thank you, sir.

MR. DICKERSON: Press on, Mr. Blasi.

BY MR. BLASI:

Q. Mr. Kelly, are you familiar with the former Ginetto property?

A. Generally, yes. I've been on it on one occasion.

Q. And has that property been acquired, to your knowledge, by Sun Enterprises?

A. Yes, it has.

Q. And that property is to the west of a ridge. Am I correct?

A. Generally, yes, right.

Q. There's a ridge in between this property and the other property.

A. That's correct.

MR. BLASI: You may inquire, Mr. Florence, if the Examiner so wishes.

MR. DICKERSON: Do you wish to combine any inquiry with redirect?

MR. FLORENCE: Well, I'd only ask if you had ever seen any excavation of that pond or that water body at all at any time you've been on the property.

THE WITNESS: No, I never saw any excavation at any time I was ever on the property.

MR. FLORENCE: All right.

MR. DICKERSON: Any other questions
of Mr. Kelly?

(There was no response.)

MR. DICKERSON: For my edification,
Mr. Blasi, where is this Ginetto property?

MR. BLASI: Ginetto. It's --

MR. DICKERSON: If we can use 45
to --

MR. FLORENCE: I may be useful. I
don't know. I'll try to be.

MR. DICKERSON: Is it continuous with the -- continuous or contiguous with the shaded outline indicating Sun Enterprises property on Exhibit 45?

MR. BLASI: It is contiguous on the west. Mr. Kipp can answer that question.

MR. KIPP: I will in time, Pete.

MR. DICKERSON: Just want an approximation.

MR. KIPP: Yes, it is contiguous.

MR. FLORENCE: The outline of Sun Enterprises Limited as it's noted on Exhibit 45 appears also to include the property that was formerly known as Ginetto.

MR. DICKERSON: Essentially the western portion.

MR. FLORENCE: Yes.

MR. DICKERSON: That's all I wanted.

MR. FLORENCE: The western portion is a dotted line through it indicating different watersheds, I guess.

MR. BLASI: It's to the west of this property.

MR. DICKERSON: O.K.

MR. FLORENCE: It's that portion of the property, for example, that carries the Plum Brook, I think would be a fair comment about that.

MR. DICKERSON: I just wanted to get it into a frame of reference, that's all.

Any further questions of this witness?

MR. ALEXANDER: I have a couple.

MR. DICKERSON: Mr. Alexander, excuse me.

CROSS-EXAMINATION

BY MR. ALEXANDER:

Q. Mr. Kelly, did you walk around this "X" pond on any of your visits to the property, the site of Sun Enterprises' property?

A. I walked over wherever possible and I rode some of it on the way.

Q. And you have identified, I guess, on Exhibit 47 a well, is that correct?

A. That's correct.

Q. Which is adjacent to that "X" pond?

A. That's correct.

Q. And you can see that on this exhibit, can you not?

A. Yes, you can.

Q. Can you tell us, first of all, how far away from the edge of the pond is that -- is the nearest portion of that well, approximately?

A. Ten to twelve feet.

Q. And can you tell us also whether the top of that well is above or level with the surface of the water in the pond?

A. The entrance to the well structure is from the top --

Q. Yes.

A. -- and then it goes down maybe ten to twelve feet. It's all encased in concrete housing. I would suspect, but there is no way of showing because I didn't take any elevations on the well, that the well is above the level of the pond.

Q. Now, are you speaking now of the top part of the well?

A. Right.

Q. Or the water level of the well or what?

A. Right, the top part of the well. Then the well extends 30 or 40 feet into the gravel strata.

Q. Can you tell us approximately how far above the surface of the water the top part of the well does actually extend?

A. Probably no more than one or two feet.

Q. And can you tell us -- then you tell us that you have to descend some steps in order to get down to the bottom portion of the well, is that right?

A. Yes.

Q. Now, in your observation of this "X" pond in any area of it that you were able to traverse, did you notice any berm?

MR. FLORENCE: Any what?

MR. DICKERSON: Berm.

A. No, I didn't really notice any berm around the edge of the pond.

Q. Well, are you able to say one way or the other whether any, in fact, exists in any area around that pond?

A. No, I would say no berm exists around the pond.

Q. You're able to state that with certainty?

A. To my best knowledge, yes.

MR. ALEXANDER: All right, thank you.

MR. DICKERSON: Mr. Manna?

BY MR. MANNA:

Q. Have you performed any drainage studies right in this area of Sun Enterprises?

A. No, I haven't.

Q. You haven't done any of that? You're not familiar with the channel capacities of the Brown Brook through that property?

A. I have made no computations on the channel capacity.

Q. Would you be able to give me any impression or opinion as to the adequacy of the culvert crossings on the Brown Brook in these several areas? Might they contribute to any possible flooding throughout that property?

A. Well, I've been there in times of dry flow and there's only two or three inches of water going through the pipes. The pipes are generally pretty close to the surface, maybe six inches or a foot of cover over them. I was there when the -- after the floods of July 4th and 5th and water was flowing right across the whole roadway and over the top of the pipes maybe about six inches.

Q. So what you're saying is that the culvert structure and the low profile of the road is not likely to increase the incidence of flooding on that property?

A. No, there's no -- no opportunity for headwater to build up.

MR. MANNA: O.K. Thank you.

MR. FLORENCE: Something occurred to me on a series of questions. Is there a pitch to this land and if there is, could you describe generally in relation to this which way the land generally pitches, facing to the south, if you know?

THE WITNESS: Well, Mr. Florence, it's very flat. There's not a big pitch that I can visibly see.

MR. DICKERSON: Any further questions?

MR. WEBER: One or two questions.

BY MR. WEBER:

Q. Mr. Kelly, you pointed out on this Exhibit 48 the location of a well before. Can you point out again for me, please, that location?

A. Yes, I identify it by the telephone pole.

Q. You made reference in your testimony to the fact that this well is encased in a concrete structure and that as you go into the concrete structure from the top, you go down about ten or twelve steps. Is the top of the concrete structure at the top of that what appears to be a mound in the picture?

A. Yes, it is.

Q. Or the telephone pole? What is the elevation of the top of that concrete structure with relation to the ground level and if you know, to the top of the level of water in the "X" pond?

A. Well, I didn't take any levels on the top of it. I would just estimate that that pile would be ten or twelve feet high.

Q. In other words, to get to the concrete structure to gain access to the well, you have to climb up a mound about ten or twelve feet high and then climb down into it?

A. At least.

MR. DICKERSON: For clarity, I'm going to mark Exhibit 48 at a point just below the depiction on the bottom here with the letters "W-1" for a point of reference.

Any further questions of Mr. Kelly?

(There was no response.)

MR. DICKERSON: Mr. Kelly, you're excused.

(Whereupon the witness was excused.)

MR. DICKERSON: Mr. Florence?

MR. FLORENCE: Dr. Gidlund, please.

ERICK R. GIDLUND,
called as a witness for and in behalf of the
objectant Kipp, having been first duly sworn,
was examined and testified as follows:

MR. DICKERSON: Would you please
be seated, state your name and affiliation, better
put an address there, too. I'm sorry.

THE WITNESS: My name is Erick R.
Gidlund. I live at 6 Shady Tree Lane, Port
Jefferson, New York. I am an Associate Professor
of Civil Engineering with the Polytechnic Institute
of New York.

DIRECT EXAMINATION

BY MR. FLORENCE:

Q. Dr. Gidlund, I show you a resumé and I ask you
to examine that and would your answers to my
questions, were I to ask you your experiences
as they related to your testimony today, would
they be the same as they are written down there?

A. Yes.

MR. FLORENCE: All right, fine.

MR. DICKERSON: Let's relax for
about one minute while everybody examines it.

MR. FLORENCE: O.K. I only have one of those, sorry.

MR. DICKERSON: I'm going to have to have it if you want to introduce it, but everybody else can look at it.

(Discussion off the record.)

MR. DICKERSON: Ladies and gentlemen. Let's continue. During the break we've marked for identification a resumé of Dr. Erick R. Gidlund. Do I get the pronunciation correct?

THE WITNESS: Yes.

(The resumé of Dr. Gidlund was marked for identification as Exhibit No. 49, this date.)

BY MR. FLORENCE:

Q. In addition to the affiliations which you have put on your resumé which I offer for -- into evidence, have you --

MR. BLASI: Wait a minute, excuse me. I would like -- I don't think that -- I object at this point to you offering it into evidence. You want to mark it for identification?

MR. FLORENCE: It is marked for identification.

MR. BLASI: It has been marked?

MR. FLORENCE: Yes.

MR. BLASI: And what is the number,

please?

MR. FLORENCE: 49.

MR. DICKERSON: 49.

MR. BLASI: Go ahead.

(Continued on page 1318)

MR. FLORENCE: I offer this resume into evidence. Would you like to inquire?

MR. BLASI: No objections. Subject to cross-examination.

BY MR. FLORENCE:

Q. In addition to the affiliations and associations that you have noted here, are there any others which are of more recent vintage than this that you've listed with which you are now associated?

A. Yes. As of September 1, 1973, my affiliation with P.I.N.Y. originated due to a state mandated merger between the N.Y.U. School of Engineering Science and the Brooklyn Poly Institute.

Q. And would you just generally tell us what your responsibilities are in an educational sense, what you do?

A. Basically I'm in charge of teaching of graduate courses in the areas of hydrology, fluid mechanics, hydraulic engineering, coastal engineering, undergraduate in the same general areas. At N.Y.U. I was in charge of the hydraulics lab. That position doesn't exist at Poly at the moment. I am also in charge of several graduate students

doing doctoral research. At the present time I have no doctoral student, but I have had several in the past.

MR. DICKERSON: Was there any objection to Exhibit 49?

MR. BLASI: Only subject to cross-examination?

MR. DICKERSON: Subject to cross-examination which goes without saying. Maybe it shouldn't, but it does. Exhibit 49 is received into evidence.

(Exhibit No. 49 was received in evidence.)

BY MR. FLORENCE:

Q. Do you presently, in addition to your work in the academic field, do work in relation to the study of projects such as this application which is before this Hearing Officer and the subject of this hearing?

MR. BLASI: Mr. Florence, do you mind, in view of the nature of the proceeding and the notice and what the Hearing Officer has said, to specify exactly on which of the fields or the

matters or issues you are asking the question?

MR. FLORENCE: I will limit it in this respect: I will ask him what his area of expertise is, and then it will follow from there on.

MR. BLASI: Well, I think his area of expertise is shown by the statement of qualifications, but your question was aimed at certain matters, and I believe it was too vague for the applicant to understand the nature of the question, so that I don't want to keep interposing objections, but if I can't understand the question, if it's vague to me, I must object to it on the grounds that it is vague.

MR. FLORENCE: How do we know that it's vague to him unless he says it is?

MR. BLASI: Well, it's vague to me.

MR. DICKERSON: Let's clear the point up. We have four applications before us, one on a water supply source and system, one for the construction of a dam and two involving applications under the stream protection law

involving a classified stream. One of these is a relocation of the stream to build the sewage treatment plant and the other the construction of a sewage discharge -- sewage effluent discharge structure or outfall on the side of the stream.

MR. FLORENCE: My area of inquiry with Dr. Gidlund will be in relation to the effect upon the Brown Brook of the discharges as they're proposed in the applicant's direct case into the Brown Brook, and I haven't any further intention of expanding the inquiry beyond that unless, of course, cross-examination should spill over.

MR. BLASI: Now I must interpose an objection. In view of -- I hope I've got the right number -- S.P.D.E.S.

MR. DICKERSON: Mr. Blasi, we've wrestled with S.P.D.E.S. and what the discharges are going to be, and you've ascertained that there would be certain criteria met. Mr. Florence does have a concern with -- he's stated concern with the effect downstream of your client's property on Brown Brook. The only things that we can hear are the effects of certain constructions that are before

us, the relocation of the stream and the discharge structure. Mr. Florence has limited his objections to those points. I'm going to allow him a little latitude to press on with that aspect of it.

MR. BLASI: Well, I don't think you've said anything different than what I was really framing my objection on. I am winding up with an ungrammatical sentence, but with S.P.D.E.S. that is easy, but, in other words, I am noting exactly what you have noted, Mr. Hearing Officer. The questioning, the latitude of it, becomes of concern to the applicant.

MR. DICKERSON: And I am going to reject your objection at this point, at least until we get a little bit of -- excuse the expression -- meet on the objector's bones as far as this case goes. I want to give him some chance to present some material along these lines.

MR. FLORENCE: I'm in as much of a quandry --

MR. BLASI: I'm waving a flag, Mr. Hearing Officer.

MR. DICKERSON: Noted.

MR. FLORENCE: I am in as much of a quandry as to the new law superimposing itself on the law as it was intended to be applied in relation to this hearing except that on the direct case there are certain matters and opinions that were expressed, and to that extent I don't intend to stray.

(Discussion off the record.)

MR. DICKERSON: I think we should continue with Mr. Florence briefly, and then we will entertain any motions that seem proper, but he does have to present his case. It may appear not in your client's best interests, but we do want to weigh the full situation.

Mr. Florence, if you want, I'll try and get you a break in 10 or 15 minutes so you can check that phone call.

BY MR. FLORENCE:

Q. Dr. Gidlund, did there come a time when you examined the area of Sun Enterprises' parcel and the area around the applicant property?

A. Yes.

Q. And can you tell us just what you examined and

what you observed?

A. Yes. On Sunday, the 23rd of September, as I recall, I arrived at the site at approximately 10 o'clock, met Mr. Kipp and drove around the property surrounding the X Pond, drove around Firemen's Pond and up -- I believe it was Warren Avenue?

MR. DICKERSON: Warren Street.

A. Warren Street. We drove down Route 100 and looked at the ponds and streams. We proceeded down 138 and viewed the stream in that location. We also took a quick look at Plum Brook as it crosses 202 near Brick Hill Road, I believe it is. We also took a look at what has been called Stream Question Mark. I believe that's on 202, but I'm not sure.

MR. DICKERSON: Fondly referring to that as Question Mark Brook, for lack of a better name.

A. Yes. Well, we took a quick look at it, in any case.

Q. Did you conduct any tests in relation to the streams?

A. Yes, on that day we sampled approximately

19 sites for various water quality parameters.

We took flow measurements at two sites. The flow measurements were taken at -- well, if I can refer to Exhibit 46, Crossing Number 2 was one site, and Crossing Number -- excuse me, Crossing Number 3 and also Crossing Number 4.

Q. And with whom were you associated in the taking of these tests?

A. I'm associated with a firm known as Environmental Assessment Associates. My fellow associates in that venture are Raoul Cardenas, Alan Molof and Gunther Stotzky.

Q. Are you familiar with these men prior to your association with Environmental Assessment Associates?

A. Yes. Alan Molof and I have been associated with N.Y.U. for the past ten years and are now associated with P.I.N.Y. I have known Raoul Cardenas both as a student and an associate for the past ten years. Gunther Stotzky I have met about six years ago and have worked with him on one or two projects since then.

Q. Could you tell us, to your knowledge, their area

of expertise, each of these men?

A. Well --

Q. Just briefly.

A. Yeah. Briefly, Alan Molof's background is undergraduate work in chemical engineering. He has a master's degree in chemical engineering and also in civil engineering. He has a Ph.D. in civil engineering, and his general area is sanitary engineering. Raoul Cardenas' undergraduate work was in microbiology. He has a master's from N.Y.U. and a Ph.D. from N.Y.U. in the area of environmental health science. Gunther Stotzky is a soil microbiologist. I'm not quite sure where his educational background is. He does have a Ph.D. I don't know where he got it.

Q. Did you make any other observations on any other dates than September 23rd of this year or take any tests other than that?

A. Our firm has taken samples on the 29th of September and again last Saturday, which I believe is the 8th of October.

MR. DICKERSON: 6th.

A. 6th, 6th of October.

Q. And will you describe the purpose of the tests and what conclusions you can arrive at as a consequence of the combination of your observations and the tests?

MR. BLASI: Now I must interpose an objection. It's not within the scope of this hearing before this Examiner.

MR. DICKERSON: Would you care to amplify on that?

MR. BLASI: What was that, sir?

MR. DICKERSON: Would you care to amplify on that?

MR. BLASI: The question, first of all, is so broad that I don't know exactly whether or not it is within the scope unless it is narrowed down. The way it is asked, it could very well be in the scope.

MR. DICKERSON: On that ground right there, I'm going to sustain the objection and ask you to be a little more specific, Mr. Florence.

BY MR. FLORENCE:

Q. Would you describe the results of the tests you

took on the books that you have enumerated and add them to the observations you have made with respect to the site?

MR. BLASI: I must interpose an objection, Mr. Examiner. First we have to know what was the purpose of the test, exactly what he's aiming at.

MR. FLORENCE: We don't have to know that.

MR. BLASI: He could get into subjects that are outside the scope of this inquiry.

MR. FLORENCE: If, as and when he should, it would be appropriate then to make a timely objection. To speculate as to his answer is equally unfair to him.

MR. DICKERSON: There's two ways we can handle this. We can ask Dr. Gidlund to give a narrative of his observations, tests and conclusions. I don't think that's probably the best way to proceed. However, if we take it logically as to what test he took and then get around to his analysis and interpretations of them,

we are going to be here some time. I don't want to go into anything like pre-discovering, but I think for simplicity's sake, it would be better for Dr. Gidlund to give us a brief summary of the test and start his interpretation, observation and analysis.

I recognize the problem, but until we hear some of the answers, we aren't really going to have grounds for upholding or negating an objection. Some of this information will be on the present status of the stream, I presume, and until that presumption is unwarranted or proven unwarranted, I am going to allow him to continue, at least until we get enough material before us to know what's happening in this course of questioning.

MR. BLASI: I think I made my position clear before, Mr. Examiner.

MR. DICKERSON: Yes, and with full understanding of that, until we get into an area that we're definitely at odds to the -- although it hasn't been emphasized that heavily what the effect on the downstream portion of the brook

involved is, I think the simplest and fastest way to cut through the problem is to let Dr. Gidlund continue.

THE WITNESS: I hate to appear dense, but just what is it you'd like me to do now?

MR. DICKERSON: I know what I would like you to do, Dr. Gidlund, and I'm not trying to be facetious, but your counsel has presented a case, Mr. Florence, and Mr. Blasi is going to present objections to protect his client's interests, and I think the simplest thing to do, with acknowledgement of Mr. Blasi's comments, tell us what tests you took.

I will not entertain any objections on that point. I will listen to any motions that may be proper when we get into interpretation, and that's the only way we are going to lay the groundwork. We are going to proceed very formally. You can tell us what you did, and then you can tell us what you thought of it.

THE WITNESS: Yeah. As I've said, there were approximately 19 sites that we sampled. Various parameters were sampled. Not all

parameters were sampled at all sites. The samples that we took included D.O., dissolved oxygen, temperature, pH , nitrates, nitrite, phosphates, depth, visibility, flow, turbidity, and on a couple of them I think we sampled hardness on the well waters, and there probably are two or three others that I can't recall right now.

MR. DICKERSON: O.K. Now, to clarify, do we have any map or can you locate the sampling points for us?

MR. FLORENCE: We will locate them subject to connection. They will be connected by another witness tomorrow morning together with the introduction of the report and summary of those tests.

MR. DICKERSON: O.K. Then let Dr. Gidlund continue with those tests that he performed and is qualified to talk about. I yield to you.

MR. BLASI: What was that, sir?

MR. DICKERSON: We'll just have to continue within that one constraint.

MR. BLASI : Well, I --

MR. DICKERSON: I'll make a personal comment that tests and samples don't mean too much to me unless I know where they were taken.

MR. FLORENCE: We intend to demonstrate that.

MR. DICKERSON: This is not before us at this moment so we'll have to continue on a few

more minutes.

MR. BLASI: What I would like to object to, Mr. Examiner, is that the only tests that we might or only tests that we believe might have any possible relevance would be the flow tests and we do intend to object to the others.

MR. DICKERSON: Until I hear more, Mr. Blasi, I'm going to overrule the objection, reserve your right to make the same objection again.

MR. BLASI: Very good, sir.

MR. DICKERSON: I see several of these parameters that will have or could have an effect.

BY MR. FLORENCE:

Q. Among the sites that were sampled or on which certain tests were taken, did you take flow tests in the Plum Brook?

A. Last Saturday we did take a flow measurement of Plum Brook at 202 and Brick Hill Road, I think.

MR. BLASI: Now, Mr. Examiner, I must object to any tests relating to Plum Brook as not within the scope of this application. We had that matter come up before.

MR. DICKERSON: Until we get this

explored a little bit further, Mr. Blasi, and I want to hear the answer to that sampling location which I want to get first of all --

MR. BLASI: Well, will you protect me on the reservation of my objection?

MR. DICKERSON: Yes, if you will just hold one minute, for just a minute, the sample being referred to was taken in Plum Brook at where?

THE WITNESS: 202 and Brick Hill Road.

MR. FLORENCE: 202 and Brick Hill.

Q. And did you have flows either then or earlier or later at any other of these streams that you mentioned?

A. Yes, we had flows on Brown Brook and again referring to Exhibit 46, is it, crossings No. 3 and 4, I think it was.

MR. DICKERSON: Crossing 3 and 4 on Exhibit 46?

MR. FLORENCE: And the Question Mark Brook?

THE WITNESS: Again, that was taken last Saturday.

Q. Where along the brook was it taken?

A. There is a little pond along the westerly side of 100 around there and there is a road that crosses it. There is a couple of culvert pipes below that road. We made the measurements at that point.

MR. DICKERSON: Excuse me. Is this a dirt road or recent --

THE WITNESS: It's a dirt road crossing there.

MR. DICKERSON: Dirt road with culvert pipes. And the flow measurements in Brown Brook were made where, the crossings 3 and 4?

THE WITNESS: Well, we have made three -- three flow measurements on Brown Brook but only one on Plum Brook or Question Mark Brook.

MR. DICKERSON: O.K. Now, Mr. Blasi, did you want to or do you want to wait a little bit more for restating that objection?

MR. BLASI: Well, I have made my objection, Mr. Examiner. The only part to which we, the applicant, do not object are those specifically within the scope of this hearing.

MR. DICKERSON: O.K. Mr. Blasi, we have made more than abundantly clear the scope of

this hearing to Mr. Florence. I think Mr. Florence has a grasp of the scope of the hearing. He's indicated that he's going to stay within that general scope. I'm going to allow him to continue to present at least at this point in time the testimony of this witness until we see how far we get. There are certain situations and factors in hydrology where it may be not only advantageous to Mr. Florence's clients but also to your own to have additional information on the two watersheds on either side of your main point of concern. Just commenting on this for your information. I'm going to basically let Mr. Florence go briefly presenting his witness and his case within the constraints that we have discussed, recognizing that it may appear slightly broader than that, but I'm going to let him do so as long as we don't wander too far afield, Mr. Florence.

MR. FLORENCE: You have the --

MR. DICKERSON: We are interested in the effect of the proposals on Brown Brook. We're interested in the facts that we can obtain on this matter and while it may appear that the

predominant influence at this moment will be strictly a matter of volume of flow, I'm not going to make that decision yet as to absolutely that is the sole criteria, but I'd like to press on if we can now.

BY MR. FLORENCE:

Q. Do you recall the results of the tests on the flow of Brown Brook?

A. Yes. The first measurements which were made on the 23rd of September and which were taken about four or five hours after fairly intense morning rainfall had flows on the order of 3 cfs. A week later the same location, the following Saturday, which was September 29th, the flows had receded to 0.89 cfs and I don't know what they were last Saturday.

MR. DICKERSON: Were these at crossing 2, 3, an average?

THE WITNESS: No, they were at crossing 2, I'm referring to.

MR. DICKERSON: At crossing --

THE WITNESS: Excuse me, 3.

MR. DICKERSON: 3, thank you.

BY MR. FLORENCE:

Q. Do you recall the results of the flow of the Plum Brook tests taken at Route 202 on October 6th?

A. Only in terms of --

MR. BLASI: Objection.

MR. DICKERSON: Your objection, sir?

MR. BLASI: Plum Brook is not within the scope of this application. We applied relating to Brown Brook.

MR. DICKERSON: Mr. Blasi, I'm going to overrule the objection and give Mr. Florence limited carte blanche in his presentation of his case as he sees fit. I can think of at least one possibility where it may have bearing. If further answers prove that it is not, then I shall disregard it in arriving at my determination.

MR. BLASI: I accept your assurances, Mr. Dickerson.

MR. DICKERSON: I'm sure that you will be the first to file the appropriate papers if you feel you are aggrieved in the decision.

BY MR. FLORENCE:

Q. Try that again. The order of magnitude of the flows

in Plum Brook.

A. I don't have the data with me, unfortunately, so I can't give you an exact number, but the ratio of flows between the flow at Plum Brook and the flow at Brown Brook was essentially a factor of 3 to 1.

Q. Which being the 3 and which being the one?

A. Plum Brook being 3 and Brown Brook being 1.

MR. DICKERSON: And this is based on the October 6th sampling?

THE WITNESS: Yes, that's the only time we sampled.

Q. Were these findings recorded by your firm?

A. Yes.

Q. And to your knowledge?

A. Yes.

Q. And they constitute part of a broader report?

A. Which is being typed right now.

Q. Now, did you make any observations about the area of the application; that is, the area of the Brown Brook in the region of the drainage basin of that Brown Brook?

A. I'm not sure I understand your question.

MR. BLASI: I don't either.

Q. Well, do you have any visual observations of the area, the site where this improvement is going on to the north of the property of Sun Enterprises?

A. Yes. It's fairly steep terrain, hilly terrain, a lot of grading is going on there. It was indicated on the map up there. There are some --

MR. DICKERSON: Can you speak up a little bit, please?

THE WITNESS: There are a few marsh -- marshy areas in the northern portion of the drainage area. I think those are largely out of the site area at least the tentative Hills site area.

South of 202, of course, the terrain is much flatter until you get down to a point the State has designated as P57d and which is designated by a location of a dam on the Sun Enterprise property near the Cricket Restaurant, I think it is, and below that the stream drops twelve feet over the dam and then proceeds down to the Muscote Reservoir.

Q. Now, in relation to your observations, have you also read the report of the waste water facility submitted by Mr. McPhee on behalf of the applicant?

MR. DICKERSON: Let's go off the record

for a second.

(Discussion off the record.)

MR. DICKERSON: Back on the record.

We've found Exhibit 21. The waste water report is Exhibit 21.

MR. FLORENCE: Well, let me -- that may not even be the report that we've seen.

MR. DICKERSON: The early editions are 9 and 10.

BY MR. FLORENCE:

Q. Do you have any observations as to the input of information and conclusions resulting therefrom by Mr. McPhee?

A. Well, he has concluded that upon completion of the project that approximately 602 gallons per day of sewage will be treated by the treatment plant and discharged to Brown Brook at Firemen's Pond.

Q. Based on that information or that conclusion, do you have any observation --

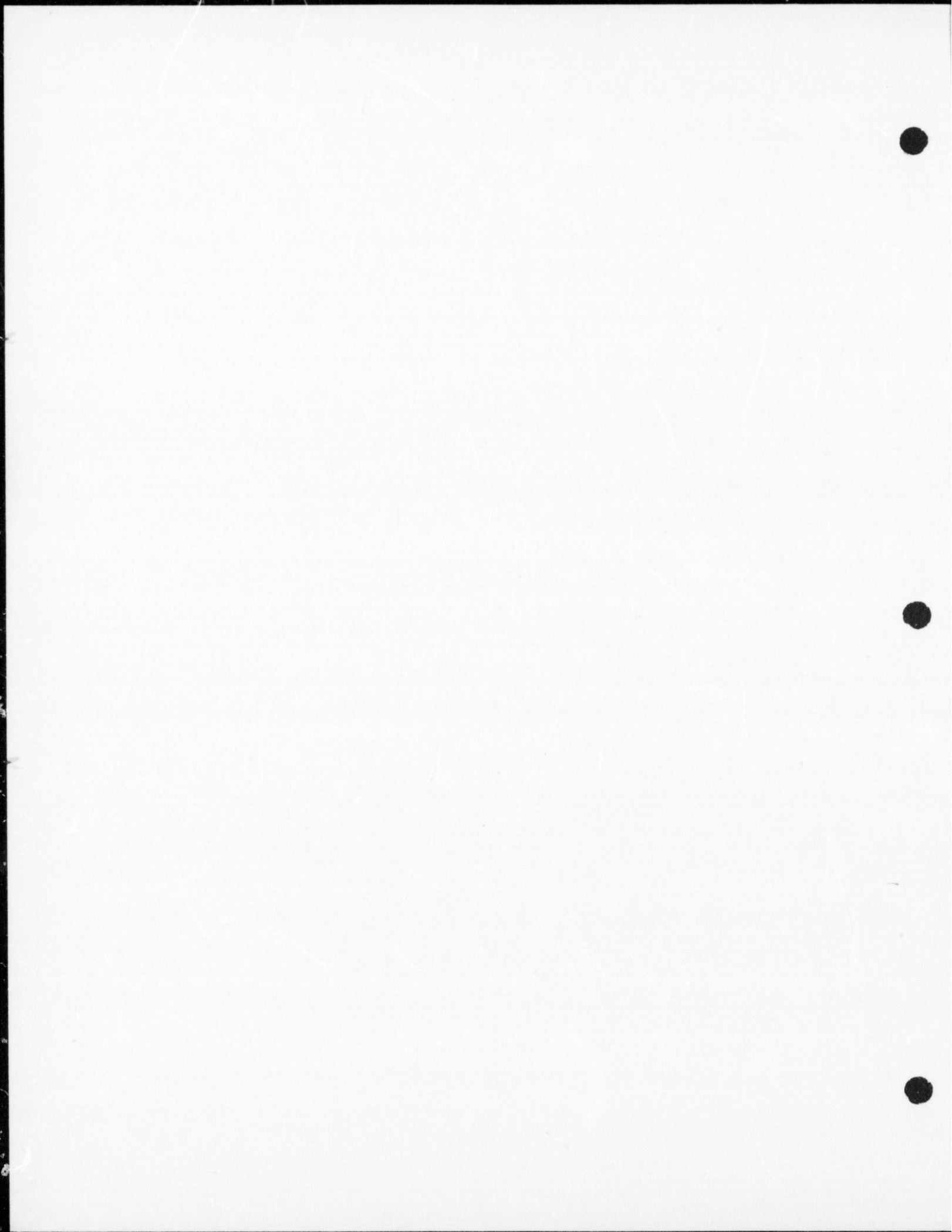
MR. DICKERSON: I think in fairness, I must interject. You mean 602,000, don't you, sir?

THE WITNESS: Excuse me, 602,000.

MR. DICKERSON: Gallons per day.

THE WITNESS: Per day, right. And yes, I have some opinions. Brown Brook is essentially an intermittent stream. There are, to my knowledge, no continuous flow records, so what its average flow actually is, is somewhat indeterminate. Based on what knowledge is available and my own belief, the mean flow of that stream would probably be in the order of 1 cfs. The addition of 602,000 gallons per day represents an increase in its average flow of, let's see, approximately 40 percent.

(Continued)



Q. What would the effect be at the 40 percent increment increase upon the stream itself, that is, the downstream?

A. Well, in terms of flow, it means that on the average more flow is going to be flowing through that stream. It also means that during periods of very dry flow, the stream shall consist almost essentially of the treated effluent. In terms of the 100-year storm, the percentage increase in flow is going to be fairly minute.

MR. BLASI: I didn't get that last answer. I am sorry.

(The record was read by the reporter.)

BY MR. FLORENCE:

Q. Do you have any observations in relation to the introduction into the stream of channeled storm water, what effect that would have?

MR. BLASI: I object to the question.

MR. FLORENCE: Here's the problem. I recognize Mr. Blasi's objection and the basis for it except that what has been made very difficult in the terms of the notice of the hearing is that

there is direct testimony as to the introduction of the effluent, but there is no direct testimony other than the suggestion that ultimately there will be storm surface water channeled toward the Brown Brook. Now, I know that the hearing does not specifically set forth the effect on the Brown Brook of the surface water. However, it would be sophomoric to believe that it would have no effect and the question is whether we should be bound by failure of whoever made the decision to ignore that particular facet as it would affect the downstream water because as I understand it, this is the hearing as set forth, and they say pursuant to a series of three sections, and if I could just indicate to you, Mr. Dickerson, and Mr. Blasi, and for the purposes of the record that the inquiry sought requests and objections to "sewer facilities to provide services to a planned residential community, the construction of the water supply and the acquisition of it and the source of the water supply."

MR. DICKERSON: Is that the 615 notice?

MR. FLORENCE: No, this is May 21, 1973,

from Mr. Vopelak, Chief of the Bureau of Water Regulation, and then the hearing referred to three different sections of the Environmental Conservation Law, stream protection, dams and water supply.

MR. DICKERSON: That was the --

MR. FLORENCE: So all at once it got a little broader. However, it seems to avoid the effect of the introduction --

MR. DICKERSON: As I commented once previously, Mr. Florence, that if the drainage plans become such that it involves any construction affecting directly the bed or banks of the stream, it will be grounds and subject to another hearing under the limited provisions and specifically provisions of the stream protection law.

I think I can fairly state that the testimony so far has been that there will be a drainage plan, but it isn't ready yet. The plans are not final.

MR. BLASI; I recognize the purpose of this hearing. I recognize the limitations, and I recognize your position. I'm going, however,

to try and determine the best basis of facts for the effect on the stream, and I'm going to allow the witness to answer this question if he has an opinion. I don't know if Mr. Florence has any idea of what his opinion is going to be.

MR. FLORENCE: That's fair enough.

MR. DICKERSON: The previous question it would appear -- or several questions ago would have appeared to have operated more to your advantage or to Mr. Kipp's, at least the answer thereto, and I will make again the statement that if there is to be any construction of an organized drainage system that will involve the stream there will be another notice and another hearing. This has not been presented to the Department yet, and anything that has taken place during the course of this hearing, of course, can be brought in at that hearing by judicial reference.

I want to get very simply at what the project is going to do to the stream within the confines of the notice. I am going to allow a little bit of latitude, as I indicated. Mr.

Florence does have a problem in the presentation of

his case. I am going to allow the witness to answer that particular question without having in any way the foreknowledge of what the answer is going to be.

If you wish to specifically, upon hearing the answer, make a request that it be disconsidered or not considered, I will so entertain it.

MR. BLASI: Of course, the problem, Mr. Examiner, is that you have ruled previously that nothing is stricken from this record, and it becomes part of the record. Now, Mr. Florence has asked a question which is, in my opinion, with due deference to the doctor here, all -- broad as all the world.

MR. DICKERSON: Yes, sir, but I will make the further comment that I can't use anything that's not in the record, and anything I do use that is in the record must be in accordance with the purposes of this hearing in arriving at the jurisdiction of the Department in arriving at its determination.

MR. FLORENCE: The question points

out --

MR. DICKERSON: I need all the information I can get that pertains to the project.

MR. FLORENCE: The question points out the frustration of giving a complete answer to the ultimate answer or a complete --

MR. DICKERSON: The ultimate question.

MR. BLASI: I think you are asking this witness to play God. I have due respect for his qualifications, but the nature of the question --

MR. DICKERSON: I recognize that it has not been established, other than in a very passing manner, that there will be additional storm drainage imposed on the stream, and the question, I believe is simply to what his opinion is of what the introduction of drainage would be. Was that it?

BY MR. FLORENCE:

Q. Let me take it back one step, if I may. Have you observed the capacity of the Brown Brook in the area where it traverses the Sun Enterprises property? Have you observed its character and its capacities? And tell me, if you have made any observations in that regard, what they are.

A. Yes. The capacity of the culvert which passes beneath Warren Street is, in my opinion, somewhere in the order of two-, possibly 250 cfs. At the time that I looked at this stream, which was September 23rd, there was a lot of visual evidence that upland erosion was adding to vast amounts of turbidity in the Firemen's Pond and the pond north of there. This turbidity essentially disappeared by the time one got down to Crossing -- again referring to Exhibit 46 -- Crossing No. 2.

Q. What factors are there that will affect, hypothetically, now, that will affect flow in a brook, what factors are involved?

A. Well, there are all kinds of them. One is the grade of the brook, the drainage area, the slopes of that drainage area, the cover on that drainage area, the amount of -- or the number of tributaries to that stream, the amount of impounding that can occur due to all kinds of activities or reasons and the intensity and duration of the rainfall.

Q. Now, in relation to factors which will affect flow in a hypothetical situation, what would be the effect of disturbing, for example, the region or

the area of the drainage basin of a brook?

A. Disturbing it in what --

Q. Surface area by excavation, for example.

A. Hypothetically again, now, if we were to consider a largely forest or pasture land somewhat similar to what exists here, removal of that topsoil and the trees involved and even if this -- and if you improve that ground by putting in grass, roads, houses and whatnot, the runoff coefficient or the ratio of surface water runoff relative to the amount of rainfall that falls on that ground will increase. At the same time the amount of infiltration will decrease.

Q. And what effect will that have, resulting effect, in two hypothetical possibilities, that where there exists the "unimproved land," with the same type of rainfall as you would have where you have a substantial amount of excavation and/or replacement of natural -- terrain in its natural state with lawn, road and asphalt shingled residences.

A. The extremes of intermittencies are exaggerated. That is, the drier flows become drier, and the wetter flows become more abundant.

Q. All right. What effect does that have -- is there a time factor that plays a part in runoff where you have "improvement" of a particular parcel?

A. Well, there's a time factor involved in runoff no matter where you're talking about.

Q. All right. But does the time factor -- is it affected by "improvement," by excavation and replacement of the natural terrain with grass and roads and grooves?

A. It can be, but it doesn't have to be.

Q. All right. Unchecked, would the time factor of runoff be of shorter duration to reach a high by improvement than there would otherwise?

A. In general it tends to be shorter, yes.

Q. All right. Now, relating that to -- that hypothetical to your observations of the Brown Brook and the applicant's parcel, do you have an opinion as to the effect of, first of all, the runoff itself and the effect on the brook of the "improvement" downstream?

A. I expect to see increased flows during periods of rainfall.

MR. BLASI : I didn't get the last

part, Doctor.

THE WITNESS: During periods of
rainfall.

MR. BLASI: During periods of
rainfall.

BY MR. FLORENCE:

Q. All right. Did you make observations as to the
depths in any portion of the Brown Brook?

A. Several places. It varied from six inches to a
foot and a half, some places two feet.

Q. Did you have any observations of the depths of
any of the other two brooks, the Plum Brook and
the Question Mark Brook at any place?

A. The Plum Brook when I looked at it was very much
broader than the Brown Brook at the place where
I looked at it. The depths were slightly larger
but not -- well, to give you a relative number,
the Brown Brook was six inches. Plum Brook might
have been eight inches, but its width was more
than twice as wide.

Q. Were these measurements or these notations made
in your computations and part of the report that
your associates prepared?

A. I hope so, but yes.

Q. In relation to the flows of Question Mark Brook, did you make observations of the flows of that particular stream?

A. In terms of its depth?

Q. Well, let's go to flow and then depth, or both.

A. The flow at the time I looked at it, at least, was approximately the same as the flow in Brown Brook at the time I looked at it.

MR. BLASI: Mr. Examiner, may we have a ruling now? Are we going to get involved in the measurements of Plum Brook and Question Mark Brook when our application relates to Brown Brook?

MR. DICKERSON: I think we've gone about as far as we're going to go on that. I may be wrong. Until we hear anything further, I'm not going to rule on it.

MR. BLASI: What was that, sir?

MR. DICKERSON: I'm not going to rule one way or another. If this is as far as it goes, I'm content with it.

MR. BLASI: All right.

MR. DICKERSON: Let me qualify

something here, if I may interrupt Mr. Florence.
The Plum Brook was running in proportion 3 to 1
Brown Brook on October 6th.

THE WITNESS: Yes.

MR. DICKERSON: Question Mark Brook
was approximately the same as Brown Brook on
October 6th.

THE WITNESS: That's right.

MR. DICKERSON: And you don't have
any quantifiable data or anything specific?

THE WITNESS: No, my guess is --
both Plum Brook and Question Mark Brook at the
time last Saturday were around 1 cfs.

MR. DICKERSON: Thank you very much.
Let's go off the record for a minute.

(Discussion off the record.)

MR. DICKERSON: Let's go back on the
record and continue.

BY MR. FLORENCE:

Q. Do you have an observation or an opinion in -- I
will withdraw that question.

MR. FLORENCE: May I have my last
question and see if we can get an answer to that

first? And then I will go on.

(The record was read by the reporter.)

(Continued on page 1354)

BY MR. FLORENCE: (Continuing)

Q. Do you have an opinion as to the depth of the Question Mark Brook?

A. It was approximately six inches.

MR. DICKERSON: Could you speak up just a little bit, please?

THE WITNESS: I'll try.

Q. Do you have an opinion as to cross-sections of the -- where you took your tests of the three brooks, Plum Brook, the Brown Brook and the Question Mark Brook?

A. The cross-section of Plum Brook was, I would guess -- I don't have the data but I would guess it's on the order of 12 feet. Brown Brook was perhaps six feet and there were two culverts that looked like 36-inch culverts at Question Mark Brook.

Q. Now, in relation to the gradient of the stream, how did that play a factor or affect the flow of water through?

MR. BLASI: Is that "a Stream" or "the" --

MR. FLORENCE: Hypothetically.

MR. BLASI: You said "the stream."

Q. A stream.

A. Well, you just consider the slope of the gradient if you will. The philosophy varies as the slope to the one-half power. Is that --

Q. Would that be the same thing as saying that the greater the slope the faster the water flows?

A. Yes.

Q. Therefore, the better it -- the greater its capacity to discharge a particular quantity of water, a hypothetical fixed quantity?

A. The steeper the gradient, the faster a given amount of water will get through a particular reach.

Q. All right. Now, in relating that particular factor to the Brown Brook, do you have an observation as to the location of the Brown Brook where it traverses the property of Sun?

A. Yes, the slope is on the order of about .04 percent.

Q. Translating that to the ability of the stream to carry amounts of water, do you have an opinion?

MR. BLASI: I think I object to that question. It's vague. Under what circumstances? How, when, where, why? I mean just that's a

hypothetical question in effect applied to Brown Brook.

MR. DICKERSON: Do you want to try and nail it down a little bit?

MR. FLORENCE: Yes.

Q. Given a particular flow -- no, given a particular rainfall and in addition to that rainfall the introduction of 600-and-some-thousand-gallons per day of sewage, what will be the effect on Brown Brook in a quantity sense?

A. Well, I'm going to qualify my answer a little bit.

Q. O.K.

A. Under very low flow conditions, the addition of sewage into Brown Brook will result in flows through the Sun property which have velocities much less than scour velocities. Whether or not you introduce sewage or not, when you have a very high rain off, rainfall, the velocities through Sun properties are going to perhaps exceed scour velocities, but that is not because of the slope of the ground now but it's because of the volume of the flows you get. Intermittent, it's really

kind of hard to give you a really definite answer.

Q. All right. In relation -- in comparing the ability of the Brown Brook to that of the Plum Brook and a given extra flow of 600,000 gallons per day, could you tell us which of the two streams would carry over or carry off the water and how you would characterize that transmission of that water away?

MR. BLASI: Now, I must interpose my objection.

MR. DICKERSON: The same one?

MR. BLASI: What was that, sir?

MR. DICKERSON: Same one?

MR. BLASI: Same one.

MR. DICKERSON: Mr. Florence?

(There was no response.)

MR. DICKERSON: Mr. Blasi, I'm going to let him answer the question with the comment on the record that we are dealing with your application according to the terms of the notice and according to law and that's the way it will be. I do want to indicate that additional information on the two adjacent watersheds east

and west of Brown Brook can be helpful in an analysis of Brown Brook. It may or may not help Mr. Florence's case. It may or may not help your case. With the comment that we will be judging the record on the basis of your application and what is proposed, I'm going to allow the witness to answer that question.

THE WITNESS: Again I have to qualify my -- my answer a little bit in saying that assuming that all other quality parameters are equal for both streams, the fact that Plum Brook has approximately three times the flow that Brown Brook has, it has an assimilative capacity due to its dilution factor of approximately three. In other words, Plum Brook should accept or should be able to accept the flow more readily than Brown Brook.

Q. What about the comparison of the same subject between the Plum Brook and Question Mark Brook?

A. Based on observations and flow, they would have a -- roughly again, although it wouldn't be an equal, essentially the same assimilative capacity.

MR. BLASI: From this point on, Mr. Examiner, the doctor is referring to assimilative capacity. It's not one of the matters covered by the scope of this application.

MR. DICKERSON: I recognize that fact and I'm going to either further amplify the doctor's answer by asking him a question if that statement is based on volumes of flow only.

THE WITNESS: Yes.

MR. DICKERSON: Thank you.

BY MR. FLORENCE:

Q. Does the size of the basin drain have an effect on the ability of the stream to carry off or assimilate waste, this waste water?

MR. BLASI: Are you now asking a hypothetical question? You use "the stream."

Q. Hypothetically.

A. Well, again, all things being equal, the bigger the watershed behind the point of discharge, the more volume of water you're going to have, the more dilution effect you're going to have, so the bigger the watershed the better dilution factors you're going to have.

Q. Would that factor play a role in the watershed areas of the Plum Brook, say, with the Brown Brook in this case?

A. Well, again, you can be relative but if you take a look at the points on 202, the watersheds north of 202 where Brown Brook and Plum Brook are -- well, they look like an order of magnitude of maybe two here.

Q. Two being the Plum Brook watershed?

A. Yes.

MR. FLORENCE: May I just have a few moments?

MR. DICKERSON: I think it might be opportune at this time to take a five-minute break.

(Whereupon, a short recess was taken.)

Q. Doctor, do you have an opinion as to whether the waters traversing Brown Brook can or do enter the pond that's on -- X Pond or X Body of Water that's depicted on Exhibit No. 46, also on 48 or 49? I forgot.

MR. DICKERSON: This is a picture of 48.

THE WITNESS: That's right. If I may back into that question --

MR. BLASI: Do you have an opinion of what?

MR. DICKERSON: He asked if he had an opinion that the waters from the brook get into X Pond.

MR. BLASI: No.

MR. DICKERSON: And I'm going to ask Dr. Gidlund to please, if you can, speak up a little bit.

THE WITNESS: If I may back into that question, X Pond acts essentially as a recharge area for Well No. 1 in both wet and dry periods. It in turn is recharged by the wetlands surrounding Pond X to the east, north and west.

The wetlands in turn are recharged by runoff from the Brown Brook as well as the adjacent watershed area of Pond X, so the answer to your question is yes.

MR. BLASI: That's an opinion, isn't it?

MR. FLORENCE: Yes, that is.

THE WITNESS: It's also a fact.

MR. FLORENCE: I have no further questions.

MR. DICKERSON: Mr. Blasi?

MR. BLASI: I defer to the Hearing Officer.

MR. DICKERSON: I'm going to hold mine because I think Mr. Manna has a couple, but I will reserve your right. Mr. Danskin?

CROSS-EXAMINATION

BY MR. DANSKIN:

Q. Several questions, Dr. Gidlund, the first of which, you made -- you took measurements of the flow.

A. Yes.

Q. Would you tell us what means you used to determine this?

A. Yes. We measured the depth and the width. We used a propeller meter.

Q. One measurement, several measurements?

A. Several measurements.

Q. You also referred to inspections or investigations, if you will, of the Brown Brook, several of the ponds in it. I'll refer to the ponds as the Firemen's Pond and the Port-Saia Pond. I'll also refer to the lands -- the stream, Brown Brook, as it flows through the Sun Enterprise land. In your inspections, sir, did you notice accretions of silt or sediments?

A. Yes.

Q. You did. Could you describe the quantities, or were they --

A. No.

Q. Did you take any samples of these silt or sediments?

A. No.

Q. Were you able to ascribe the time frame in which they settled out or accreted?

A. Well, I think I have testified that by the time the flow had reached -- I think it's Crossing 2, did I say?

MR. DICKERSON: 2 and 3.

A. -- that the turbidity had virtually disappeared. This is an indication that sedimentation had occurred prior to that. Now, the flow in the stream at that point is less than a foot per second. You are talking of maybe 1500 feet, so it's what, 1500 seconds from the time that it enters or leaves Firemen's Pond.

Q. O.K. I think you misunderstood my question. My question is basically this: Through any of your tests or investigations, have you determined that considerably more or noticeably more silt and sediment has accreted in either the Port-Saia Pond, the Firemen's Pond or the Brown Brook below the Firemen's Pond this year than it did in past years?

A. No.

MR. DANSKIN: Thank you.

MR. DICKERSON: Mr. Manna?

MR. FLORENCE: What was the question to the last answer? Was it a comparison of previous years?

MR. DICKERSON: More this year than past years.

MR. FLORENCE: He didn't examine it.

BY MR. MANNA:

Q. First, one statement that you made was that you would expect an increase in runoff as a result of this development. May I ask if you have seen the plans for the total development? Are you aware of the dam or of the ponds that they are projecting for this development?

A. Only as they were discussed this morning.

Q. O.K. Then you don't really -- you have not looked into the fact that this -- these ponds might detain some runoff?

A. No, I haven't.

Q. O.K. I have been listening, and I really haven't heard you get deeply into the results of your tests as far as water quality goes.

A. No, I haven't, and that's not my area of expertise.

Q. That is not. Will there be someone to testify --

A. Yes.

Q. -- to testify to water quality?

MR. FLORENCE: I surely hope so.

BY MR. MANNA:

Q. I will ask you also, in your opinion, on the Sun Enterprises property, the culvert crossings of the Brown Brook or the culverts -- the portions that have roads over the Brown Brook, are these culverts adequate, in your estimation? Do they contribute or can they contribute to flooding on the Kipp property?

A. In my opinion, I have seen no culvert on the Brown Brook that is adequate for the 100-year storm. When you are talking in terms of adequacy, I would guess -- and this is pure guess -- that if you talk in terms of the five- or the ten-year storm, they may well be adequate. Beyond that I would doubt it.

MR. MANNA: O.K. Well, in view of the fact that someone else will be discussing water quality, that's all I have to say.

MR. DICKERSON: Mr. Alexander, any questions?

MR. ALEXANDER: I may have, but I'm not quite ready.

MR. DICKERSON: O.K. Mrs. Saia, do you have any questions of this witness?

MRS. SAIA: Yes.

BY MR. SAIA:

Q. You stated that you found evidence of soil erosion along Brown Brook. Can you tell me if this soil would tend to settle in a pond, or would it be suspended as colloidal material?

A. It will settle any time the velocity decreases below approximately 1.5 feet per second. In most of the ponds that you have in the system, the velocity is much less than that.

Q. What effect would continuous soil erosion have on a shallow pond such as the Port-Saia Pond?

A. Its depth will decrease.

Q. Could you explain maybe about the animal life, what effect this would have on it?

MR. DICKERSON: I will let Dr. Gidlund finish the answer. He started to indicate.

MR. FLORENCE: He didn't have that area of expertise.

MR. DICKERSON: Well, let Dr. Gidlund say what he was going to say.

THE WITNESS: It's beyond my area of expertise.

BY MR. SAIA:

Q. O.K. I'd also like to know, have you seen the Port-Saia Pond before September 23rd, or was this the first time?

A. The first time I had been in the Town of Somers was September 23rd.

MR. SAIA: O.K. Thank you.

MR. DICKERSON: Mrs. Port?

MRS. PORT: I just have one question: I didn't understand what Mr. Danskin meant. Did you say that there was no more sediment coming into that pond, the corner of Warren Street, than there was in previous years?

THE WITNESS: No, I said I did not know.

MRS. PORT: And not so. That's what we want to find out. Thank you.

MR. DICKERSON: Mr. Oehler, any questions of this witness?

(Mr. Oehler shakes head.)

MR. DICKERSON: Mrs. Daly?

BY MRS. DALY:

Q. Are you familiar with the proposed dam site?

MR. FLORENCE: He just said he didn't know.

Q. At the corner of Warren Street?

A. No, I'm not.

Q. You're not. Are you familiar with dams in general?

A. Yes.

Q. You are. What will the dam do to the fish that

are entering the dam, in other words --

A. I'm not quite sure I understand you.

Q. What?

A. I'm not quite sure I understand your question.

Q. Well, when the fish -- will the fish be sucked into the pipes that they have there? Will some fish be sucked into the pipe?

MR. DICKERSON: O.K. Mrs. Daly, please?

Q. Will some of the fish be sucked into the pipe perhaps?

A. Well, I'm not sure that I understand what pipe.

Q. Well, they're supposed to have a pipe lying about a foot or so above the base of the dam.

A. Well --

Q. Is there a possibility?

A. There is a possibility, yes.

Q. There is. There is also a possibility that they may be killed?

A. I don't see that possibility.

Q. Because of the suction?

A. Well, yeah, but what kills the fish is really an increase in pressure and that's not the suction.

Q. Well, then the pressure being forced through --

- A. If this were a turbine you might have that kind of problem but being a gravity release, the head on it is only going to amount to the head on the dam itself which I think it was stated here as several feet.

MR. DICKERSON: The normal pool elevation, as I recall, was supposed to be 8 feet.

THE WITNESS: So that kind of pressure would not cause this, no.

- Q. When you say "release," do you mean when they're being expelled then after they traverse the dam and they're being expelled, is that what you mean by "release"?

- A. Yes, but I also should point out that fish are very sensitive creatures and they respond very quickly to any change in either temperature or pressure and if they -- if they can sense the sudden increase or decrease in pressure, they are going to get the heck out of there. It's only when that increase or decrease is so rapid that they don't have time to respond that they get sucked in.

- Q. That's my point. Now, because it's not their natural habitat, I mean it's a change of their natural habitat?

MR. BLASI: Well, I regret to --

MR. FLORENCE: May I?

MR. BLASI: I regret to --

MR. FLORENCE: Please.

MR. DICKERSON: Mr. Blasi was first.

MR. BLASI: I think Dr. Gidlund has testified it's not his expertise. We're getting now --

MR. FLORENCE: I join in this objection, period.

MRS. DALY: You mean I can't go on?

MR. DICKERSON: Well, do you have any other questions that pertain to Dr. Gidlund's expertise? Dr. Gidlund apparently has to leave here in about five minutes according to the back clock.

MRS. DALY: I think this probably is one that he can answer.

Q. Isn't it true that water spilling over a dam becomes either saturated or has an excessive amount of nitrogen which is injurious -- well, I'll give that -- I'll follow that with another question.

A. Well --

Q. Increases the amount of nitrogen?

MR. BLASI: I'm going to object to that question.

MR. FLORENCE: Yes or no.

A. I'm not sure I can answer it either way. It does entrain air and air does have nitrogen in it and in that sense it's going to have some nitrogen. Whether or not it's going to have any effect in terms of nitrate or not, I have no idea.

Q. Well, as far as this dam is concerned, during the spring thaws and the heavy rains flush the brook, the Brown Brook, the flushing action cleans the brook of various types of debris like fallen leaves and branches and et cetera and et cetera. Will this dam's outflow -- that's an apostrophe s -- outflow be so controlled that the cleansing action will not take place like it would under ordinary circumstances, you know, because of the controlled action of the dam?

A. Well, since I am not familiar with the size, the shape of the dam, the area of impoundment you're talking about, I really can't give you an answer to that question. I just don't know.

Q. But wouldn't --

MR. DICKERSON: Are these the questions, Mrs. Daly, that you were going to ask Mr. Blasi to see if he could get answers for you and you were going to bring up in your closing statement?

MRS. DALY: Yeah, but he'd have time to think them over.

MR. BLASI: That wouldn't help me at all. That wouldn't help me in the least.

MR. DICKERSON: Mrs. Daly, even if he did, I want the truth and I'd rather have ten truthful answers tomorrow than three "I don't know's" this afternoon, and I think Dr. Gidlund has only been here today. He's made certain tests and that's as far as he could take it and if these questions are the ones you want to enter on the record and have considered in light of Mr. Bibbo's testimony, I'm going to suggest again that you present them in your closing statement. If you don't want to give them to Mr. Blasi and see if he can come up with some answers for you, O.K. And if you present them in the closing statement, I'll be more than glad to review them and think them over and go over

them. But we can't really put Dr. Gidlund on the spot either because he wasn't the one who done it, to speak very bluntly.

MR. BLASI: And he has to go to class.

MR. DICKERSON: But before he goes, is there anybody else who has any questions?

MR. BLASI: Well, I would like to -- he's coming back tomorrow, Mr. Examiner, and I'm not going to start any cross now. I would like to consider it very carefully but if you have any questions, I defer to you.

MR. DICKERSON: All right. Let me ask a few questions real fast. Dr. Gidlund, here comes the shotgun.

Do you have any estimate of the culvert capacity? Is the culvert going under 202, I'm speaking now with respect to Brown Brook --

THE WITNESS: The culvert there, I really didn't look at it so I -- I'm going to give you a guesstimate if you want, but it's probably something on the order of maybe 400 probably, perhaps a little bit more than that.

MR. DICKERSON: 400 plus, O.K. At

Crossing 1?

THE WITNESS: I -- I did not even look at that one so I don't know.

MR. DICKERSON: O.K. Crossing 2?

THE WITNESS: I would guess something on the order of 100 to 150.

MR. DICKERSON: 3?

THE WITNESS: Approximately the same.

MR. DICKERSON: 4?

THE WITNESS: Again approximately the same.

MR. DICKERSON: And 5?

THE WITNESS: 5 is the --

MR. DICKERSON: The reinforced concrete bridge, if I recall earlier testimony.

THE WITNESS: Yes, it's something in excess of that, 250 maybe.

MR. DICKERSON: 250 plus or minus. O.K. Now, you mentioned that the volume for volume flows between Plum Brook as you saw them and Brown Brook were on the order of 3 to 1. 'm paraphrasing your testimony to give you that.

THE WI WITNESS: Yes, sir.

MR. DICKERSON: I direct your attention to Exhibit 45 and do you have any observations or any feel for the volume of flows in the tributary to Plum Brook that is indicated in the pink coloring by the letter "E" on Exhibit 45 with respect to Brown Brook?

THE WITNESS: I really don't but if -- if I assume that the slopes are roughly the same and that's what they look like, they would be slightly less than the Brown Brook.

MR. DICKERSON: Thank you.

Mr. Blasi?

MR. BLASI: I think we'll let the doctor go to take care of his class. Mr. Florence says he'll bring him back tomorrow.

MR. DICKERSON: O.K.

MR. BLASI: He may be taking a chance coming back here but until we review it, in fairness to the applicant, I must review what he's testified.

MR. DICKERSON: Fair enough. Dr. Gidlund, you're excused until tomorrow morning.

MR. BLASI: Have a nice class.

MR. FLORENCE: I have one more witness,

not today. He's teaching now. He comes tomorrow.

MR. BLASI: I would like to know the name of the witness, Mr. Examiner.

MR. FLORENCE: By what right?

MR. BLASI: You haven't produced him. You should have an affidavit as to why he isn't here.

MR. DICKERSON: Mr. Blasi, you know we're not -- fortunately or unfortunately as the case may be -- involved with the decorum of the court. It is my understanding that with one witness remaining, contingencies of cross-examination being what they will, that that will wrap up Mr. Florence's case.

MR. BLASI: Will he be in Washington tomorrow morning or will he be here? That's the question I'd like answered.

MR. DICKERSON: I have blank subpoenas in my file if you wish to pursue this matter with more firmness.

MR. BLASI: I know Mr. Florence and he knows me and I don't want to pursue Mr. Florence with subpoenas and I want his statement as a member

of the bar, as a fellow member of the bar, for which he and I, I hope, share high regard, that he will have his witness here tomorrow and that plus Dr. Gidlund's return is his case. That's what I want to know.

MR. DICKERSON: 9:30?

MR. FLORENCE: I think we told him 10 o'clock, I'm not sure, but I would say that I am relying on the presence of this witness much more than Mr. Blasi, I assure you of that.

MR. DICKERSON: O.K. Mr. Oehler, I understand that you wish to make your final statement and presentation tomorrow?

MR. OEHLER: M-m h-m-m.

MR. FLORENCE: I intend, if I have any -- to the extent that I have any effect on tomorrow's proceedings, I would expect to be done in a relatively short period of time tomorrow. That excludes cross-examination by Mr. Blasi but to the extent that that would be added, I certainly would anticipate that even closing statements would be made and everything else by tomorrow at the close of the regular day.

MR. DICKERSON: Is there any more business we can pursue this afternoon?

MR. FLORENCE: Are there any other presentations that could be made?

MR. DICKERSON: Mr. Oehler's, I believe, is the only one left besides yours.

MR. BLASI: Is it possible for Mr. Oehler to make his presentation now so that we can get it in the record now and have a little more time available tomorrow?

MR. DICKERSON: He said that he would be ready tomorrow and he would be brief.

MR. BLASI: He would be brief.

MR. OEHLER: I'm not a member of the bar.

MR. DICKERSON: Gentlemen, gentlemen.

Mr. Florence, the understanding is that you told your witness to be here by 10?

MR. FLORENCE: I had hoped that he would be here today. His teaching commitments are such that he asked if he could come tomorrow first thing, so I said yes, knowing that I would have Dr. Gidlund in lieu of the other witness.

MR. DICKERSON: All right. If you can get to him tonight by telephone I would appreciate it having him here so that we can resume at 9:30. We will resume at 9:30. The elastic band on that time limit will stretch exactly 31 minutes. And with that comment, we will adjourn until tomorrow morning. Then we will continue and, God willing, conclude tomorrow but we will continue at 9:30 tomorrow morning.

(Whereupon at 4:20 p.m. the hearing was adjourned to reconvene on Wednesday, October 10th, 1973, at 9:30 a.m.)

I N D E X

1381

<u>Witnesses:</u>	<u>Direct</u>	<u>Cross</u>	<u>Redirect</u>	<u>Recross</u>
Howard A. Kelly, Jr.	1215	1260		
Erick R. Gidlund	1315	1362		

E X H I B I T S

		<u>For Id.</u>	<u>Evid.</u>
No. 44	Resumé. Howard A. Kelly, Jr.	1217	1218
No. 45	Map	1220	1233
No. 46	Map	1237	1248
No. 47-A	Photograph	1250	1257
No. 47-B	Photograph	1250	1257
No. 47-C	Photograph	1250	1257
No. 47-D	Photograph	1250	1257
No. 47-E	Photograph	1250	1257
No. 47-F	Photograph	1250	1257
No. 48	Photograph	1290	
No. 49	Resume Dr. Gidlund	1316	1319